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# The Asian Currency Crisis: Origins, Lessons, and Future Outlook

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# The Asian Currency Crisis

## Origins, Lessons, and Future Outlook

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# FOREWORD

During the last decade, economists and policymakers around the world have closely followed the economic success of the countries in East and Southeast Asia. From 1965 to 1996, the gross domestic product of the countries in this region grew at the rate at least twice as high as the growth rate in any other comparable region in the world. After the early success of Japan, most of the recent achievement can be attributed to the growth performance of the four tigers—Hong Kong, Singapore, South Korea, and Taiwan—and the three newly industrialized countries of Southeast Asia—Indonesia, Malaysia, and Thailand. In the last three countries, average income more than quadrupled during 1965–96, and income in South Korea rose sevenfold. This region attracted almost half of total private capital inflows to developing countries—US$100 billion in 1996.

Besides generating economic growth, these countries have also been successful in increasing life expectancy, extending education and reducing poverty. A set of common factors can be identified as the source of this remarkable performance. These include outward-oriented, market-friendly government policies, complemented with macroeconomic stability, agricultural development, investment in human resources, mobilization of savings, high rates of productive investment, industrial policy designed to close the technological gap, and a strong emphasis on egalitarian policies.

Against this background, it is safe to say that the scale and depth of the Asian economic and financial crisis in 1997-8 surprised everyone. There were some sceptical economists who regarded the claims of an Asian economic miracle as overstated, arguing that these countries were bound to run into diminishing returns eventually. But no one had anticipated the magnitude of events. Instead of a gradual slowdown in economic growth, these countries experienced the collapse of domestic asset markets, widespread bank failures and bankruptcies of business firms.

In this study Professor Abdur R. Chowdhury explains what led to the Asian crisis and how it spread throughout the region. He also analyses the lessons that can be learnt from this experience to prevent it from occurring in the future, and also evaluates the future outlook of the countries in this region.

Professor Chowdhury conducted the major part of his research for this study during a two-month stay at UNU/WIDER in 1998 as the first participant in the Institute's mini-sabbatical programme.

Giovanni Andrea Cornia
Director, UNU/WIDER
February 1999

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## ABSTRACT

What started in the summer of 1997 as a regional economic and financial crisis in East and Southeast Asia had developed into a global financial crisis within the span of a year. This crisis followed the crisis in the European Monetary System in 1992–3 and the Mexican peso crisis in 1994–5. However, unlike the previous two crises, the scale and depth of the Asian crisis surprised everyone. One obvious reason for this is East and Southeast Asia's track record of economic success. Since the 1960s, no other group of countries in the world has produced more rapid economic growth or such a dramatic reduction in poverty. Given so many years of sustained economic performance the obvious question is: how could events in Asia unfold as they did?

This paper has three objectives. First, to explain what led to this crisis and how did it spread throughout the region; second, to analyze the lessons that can be learned from this crisis to prevent it from reoccurring in the future and; third, to evaluate the future outlook of the countries in this region.

The paper shows that what led to the crisis was a fatal combination of several self-reinforcing factors including external sector weaknesses, fragility in domestic financial markets due to inadequately administered financial liberalization, loss of confidence, and short-term capital flows, maturing within less than a year and denominated in unhedged dollars. Some of these factors were country-specific while others were common to the entire region.

Asia's financial crisis will almost certainly lead to important changes in the international financial system, as countries try to find an appropriate balance between the benefits from gaining access to international capital flows and the potential for instability and other risks that also seem to be much greater in a world of large and highly mobile capital movement. The paper discusses important lessons from the crisis. Some are preventive, designed to reduce the probability of financial crisis in the future, while others are more fundamental in nature.

After the analysis of what went wrong and what we can learn from the crisis, comes the analysis of what happens next as Asian countries try to find their way back to economic stability and growth. The recovery process for these countries can be broadly divided into three phases. In the first phase, policies designed to address the causes of the crisis need to be formulated. In the second phase, a recovery of private capital inflow can be expected. The third and final phase of the process will be reached when the recapitalization of the financial system has been largely accomplished and when the level of private consumption and private investment have reached the pre-crisis level.

# I INTRODUCTION

It may be much too early to draw any definitive conclusions regarding the financial crisis that has plagued East and Southeast Asia since the middle of 1997. However, there is some advantage in discussing what might have gone wrong, what can be done to fix the immediate problems and, how similar crises can be prevented in the future. Such an open discussion would assist us in continuously refining and modifying our understanding of economic and financial crisis.

What started in the summer of 1997 as a regional economic and financial crisis in East Asia had developed into a global financial crisis within the span of a year. By August 1998, Japan was in the grip of a serious recession with concerns that failure to pursue adequate banking and financial reforms may lead to a further depreciation in yen. Russia was also in serious economic trouble following the collapse of the ruble. The crisis in Russia led to a rapid contagion in Latin America with the currencies in Brazil, Venezuela and several other countries coming under speculative pressure. This contagion also affected the capital markets in the United States and Europe. The losses suffered by the financial institutions in Russia and emerging markets and the near collapse of the hedge fund, Long-Term Capital Management, led to a severe liquidity squeeze in the US capital markets. By September 1998, the risks of a global recession had significantly increased. The conditions in the international financial markets, however, improved substantially in October and November following three separate interest rate cuts by the Federal Reserve Bank in the United States.

TABLE 1
ACTUAL AND PROJECTED GROWTH RATES IN GDP

| | Percentage change in GDP | | | | |
|---|---|---|---|---|---|
| | 1996 | 1997 | 1998 | 1999 | 2000 |
| World | 2.9 | 3.2 | 2.6 | 3.1 | 3.2 |
| High-income economies | 2.5 | 2.8 | 2.4 | 2.6 | 2.7 |
| Low- & middle-income economies | | | | | |
| East Asia & Pacific | 8.6 | 7.8 | 5.7 | 6.3 | 6.7 |
| *excluding* China | n.a. | 4.0 | 0.7 | 3.1 | 4.3 |
| South Asia | 6.5 | 5.6 | 5.8 | 6.1 | 6.3 |
| Europe & Central Asia | -0.3 | 2.3 | 3.0 | 4.0 | 5.1 |
| Latin America, the Caribbean | 3.4 | 4.8 | 2.7 | 3.7 | 3.8 |
| Middle East & North Africa | 4.1 | 3.1 | 2.7 | 3.2 | 3.5 |
| Sub-Saharan Africa | 3.8 | 3.4 | 3.4 | 4.5 | 4.5 |

Source: The World Bank.

Note: Figures for 1996 are actual while those for 1997 are estimates. Figures for the remaining years are forecasts.

With Japan in the grip of a recession, and Thailand, Indonesia, and South Korea at the IMF's door, there can be little doubt that the crisis in East and Southeast Asia has affected

the rest of the world. The IMF has recently lowered its 1998 projection for global growth from 4.5 to 3.8 per cent. The World Bank also expects economic growth to slow globally and in most regions in 1998, then to begin recovering in 1999 (see Table 1). Economic growth in the United States is also projected to be about one percentage point lower in 1998 as a result of the Asian financial turbulence.

TABLE 2
AVERAGE ANNUAL PERCENTAGE GROWTH IN GDP

| | 1996 GDP per head (at PPP US$) | GDP growth rate | | | |
|---|---|---|---|---|---|
| | | % annual average 1970-96 | 1994 | 1995 | 1996 | 1997 |
| China | 3,120 | 9.1 | 12.66 | 10.55 | 9.54 | 8.80 |
| Hong Kong | 25,400 | 7.5 | 5.51 | 3.85 | 5.03 | 5.29 |
| Indonesia | 4,280 | 6.8 | 7.54 | 8.22 | 7.98 | 4.65 |
| Malaysia | 9.703 | 7.4 | 9.24 | 9.46 | 8.58 | 7.81 |
| Philippines | 3,060 | 3.6 | 4.38 | 4.77 | 5.76 | 5.10 |
| Singapore | 25,650 | 8.2 | 10.05 | 8.75 | 7.32 | 7.55 |
| South Korea | 12,410 | 8.4 | 8.58 | 8.94 | 7.10 | 5.47 |
| Taiwan | 17,720 | 8.3 | 6.54 | 6.03 | 5.67 | 6.81 |
| Thailand | 8,370 | 7.5 | 8.94 | 8.84 | 5.52 | -0.43 |

Source: The World Bank; IMF (1998).

The financial crisis in Asia is the third major crisis during the last decade. It followed the crisis in the European Monetary System in 1992–3 and the Mexican peso crisis in 1994–5. However, unlike the previous two crises, the scale and depth of the Asian crisis surprised everyone. One obvious reason for this is East and Southeast Asia's track record of economic success. Since the 1960s, no other group of countries in the world has produced more rapid economic growth or such a dramatic reduction in poverty. In Indonesia, Malaysia, and Thailand average income more than quadrupled between 1965-96, and in Korea, income rose seven times (see Tables 2 and 3). This region attracted almost half of total private capital inflows to developing countries; US$100 billion in 1996.

TABLE 3
GDP PER PERSON (ANNUAL AVERAGE PERCENTAGE CHANGE, 1965-96)

| | |
|---|---|
| East Asia | 5.53 |
| Rich industrial countries | 2.24 |
| South Asia | 2.23 |
| Latin America | 1.06 |
| Africa | -0.24 |
| Middle East | -1.30 |

Source: The World Bank.

Given so many years of sustained economic performance the obvious question is: how could events in Asia unfold as they did? True, there were some sceptics who regarded the claims of an Asian economic miracle as overstated and argued that the growth was based on an accelerated use of labour and capital rather than on the absorption of new technology

(Krugman, 1994; Young, 1995; Frankel and Rose, 1996; Park, 1996). Krugman (1994) suggested that by the 1990s, the pace of the region's growth was likely to slow as diminishing returns set in. But it would be fair to say that even in early 1997 nobody suspected that such a calamity was remotely possible, although all of what are now described as the fundamental flaws of these economies were evident even then.

This study has three objectives. First, to explain what led to this crisis and how did it spread throughout the region; second, to analyse the lessons that can be learned from this crisis to prevent it from reoccurring in the future and; third, to evaluate the future outlook of the countries in this region.

Although the causes of the Asian currency crisis are complex, two major competing hypotheses and interpretations have emerged from recent analyses of the crisis. On one hand, Radelet and Sachs (1998a and 1998b) have pointed out to sudden and mostly arbitrary shifts in market expectations and confidence, i.e., financial panic, as the major determinant of the initial financial turmoil. According to this view, although the macroeconomic performance of some of these countries were weak in certain sectors, the extent and depth of the crisis was caused by the panic of local and foreign investors and the wrong policy response of the IMF and other international financial agents. On the other hand, several studies (Corsetti *et al.* (1998), IMF (1998), Krugman (1998a, 1998b), Noland (1998), and Goldstein (1998) have blamed structural factors for triggering the crisis. They argued that an unsustainable decline in macroeconomic fundamentals, weaknesses in the financial system, coupled with poor economic policies were at the root of the crisis. Financial weaknesses were caused largely by the lack of incentives for effective risk management created by implicit or explicit government guarantees against failure. The crisis reflected excessive investment fuelled, first, by international speculation that drove regional asset values to unrealistic levels, and second, by an East Asian variant of crony capitalism that directed investment to unproductive ends (Browne *et al.*, 1998; Krugman, 1998c).

The distinction between these two competing hypotheses is important as their policy implications vary greatly. Was the East Asian crisis something that was waiting to happen? Or was it something that did not have to happen? The answers to these questions are critical not only in determining an effective response but also for economies elsewhere that has embarked on the path to financial liberalization. Should the source of the crisis be financial panic, the appropriate response would be to impose various safeguards including certain controls on capital movement. However, if the crisis had been caused by weak economic fundamentals, then finding solutions would involve economic, political, and social reforms.

In deciding which explanation is more relevant for the Asian case, certain inconsistencies between these explanations and the reality must be pointed out. For instance, many economic fundamentals were incompatible with an impending crisis. The East Asian economies enjoyed low inflation, strong GDP growth, high investment rates, and fiscal balance. On the other hand, inconsistencies also exist regarding the financial panic explanation. The dramatic shift in investor confidence required in this case is unlikely to have been completely exogenous. Economic fundamentals must have played a role in the

investors' decision-making process as they knew the economic status of these countries prior to the crisis.

This study will take an intermediate view and argue that these two explanations are not mutually exclusive and what led to this crisis was a fatal combination of several self-reinforcing factors including external sector weaknesses, fragility in domestic financial markets due to inadequately administered financial liberalization, loss of confidence, and short-term capital flows, maturing within less than a year and denominated in unhedged dollars. Some of these factors were country-specific while others were common to the entire region.

By the mid 1990s, several countries in Asia—using Japan's model of high savings, close co-operation of government and private sector, high levels of education, and export-oriented growth—had transformed themselves from underdeveloped states to industrial giants. Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, and Thailand became the model for other developing countries to emulate. But while the model was efficient at catching the industrial giants in the West, it also led to a large number of weaknesses in these countries including, but not limited to, weakness in corporate governance arrangement, poor regulatory and supervisory arrangements in the financial sector, propensity to high indebtedness and over-leveraging in the business sector, lack of transparency at all levels, etc.

However, these deficiencies were present for many years and did not prevent these countries from attaining the high level of economic growth since the 1960s. Hence, they cannot, by themselves, explain the crisis. Several common macroeconomic problems across the region can provide some missing pieces of the puzzle.

First, the high level of continued growth gave rise to a sense of optimism about these countries. Investors abroad considered them to be low-risk, well-run economies with sensible government budgets and predictable exchange rate risks. As financial liberalization opened up these markets to foreign investors, a rapid growth of net capital inflows took place. This led to obvious overheating in some economies as reflected in their large current account deficits. Moreover, most of the capital inflows were short-term, unhedged, highly leveraged, and denominated in foreign currencies. Due to lax regulatory practices in the financial sectors in these countries, the capital inflow was used mostly to finance speculative investments in the real estate sector in Indonesia, Malaysia, and Thailand and industrial sector in Korea. This led to excess capacity, unsustainable increase in real estate prices, and low, even negative, returns on investments. Moreover, there was a mismatch in the whole process—the local lenders were borrowing short and lending long. The short-term nature of the capital inflow made the region vulnerable to any shift in credit conditions.

Second, the countries in this region, for all practical purposes, pegged their currencies to the US dollar. In nominal terms, the currencies were reasonably stable. However, the risk of overheating due to the capital inflow in the early 1990s raised questions about the sustainability of the exchange rate policy. Starting in mid 1995, the dollar rose sharply against the yen. Given that Japan is one of the region's major export destinations and also home of key competitors and investors, the region experienced an erosion of

competitiveness in the international market. The rising low-cost export from China and the emerging bottlenecks in labour markets resulting in high real wages in several countries also reduced competitiveness.

Third, the region got caught up in the global wave of financial liberalization. However, in more cases than not, it had not been supported by adequate macroeconomic policies and structural reforms. Liberalization measures were often partial and incoherent. For example, capital account opening in a number of countries allowed banks, but not business enterprises, to borrow heavily in international markets. This led to more liberal movement of short-term than long-term capital. Once the crisis broke, this turned out to be a major problem.

Fourth, none of the structural problems discussed so far can explain the severity of the crisis. These countries have thrived for years, despite weak financial systems and destabilizing external events, such as, the oil shocks of the 1970s and the soaring dollar of the early 1980s. A big part of the explanation for the severity of the crisis lies with the fickleness of external investors, who first behaved as if these Asian economies could do nothing wrong and, shortly thereafter, as if they could do nothing right. Net private capital flows to Indonesia, Malaysia, the Philippines, South Korea, and Thailand jumped from about US$38 billion in 1994 to US$97 billion in 1996, to collapse to about minus US$12 billion in 1997. The immediate trigger to the crisis occurred through a number of channels. The Federal Reserve Bank in the United States raised the short-term interest rate in March, 1997. Expecting more increases in the interest rate in the future, international investors reassessed their prospects in several countries in the region, especially Thailand. Reassessment of growth prospects in Thailand led to a decline in stock prices. As investors looked for alternative investment instruments, especially in bond markets, they realised that the Asian bond markets were too thin to absorb the increased demand. The resulting portfolio adjustment led to an outflow of capital from Thailand leading to a downward pressure on the baht.

The Bank of Thailand initially resisted the speculative pressure by buying baht and selling US dollars in the foreign exchange market. Given the low exchange rate risk, many local borrowers maintained open foreign exchange position. Their efforts to hedge or close these positions led to a further downward pressure on the baht. This, in turn, increased the debt burden in terms of local currency. As the foreign exchange reserve depleted quickly, the Bank of Thailand was forced to float the currency on 2 July 1997–this led to a large decline in the value of baht.

The depreciation of the baht created a domino effect. As foreign investors reassessed their portfolio composition, they focused attention on several other neighbouring countries. They found conditions similar to those in Thailand, notably, their macroeconomic conditions, problems in their financial sectors, political uncertainty, and the level of short-term debt. This led to a contagion effect by exerting pressure on the currencies in Indonesia, Malaysia, the Philippines and other countries in the region. Markets panicked, exchange rates and equity markets overshot, a round of competitive devaluation took place, and the resulting crisis engulfed the entire region. The devaluation of the baht triggered the speculative attacks on other currencies in the region, thus showing that an explanation based solely on weak economic fundamentals is not enough to explain the crisis.

In setting the stage for the analysis that follows, Section II briefly describes the past economic performance of the countries in East and Southeast Asia. Section III analyses the origins of the currency crisis; while Section IV describes the events leading to the crisis. Certain policy implications based on the lessons learned from this crisis are suggested in Section V. Finally, Section VI describes the future outlook, both short-term and long-term, for the region.

## II PAST ECONOMIC PERFORMANCE

During the last decade, policymakers and academicians around the world have closely followed the economic success of the countries in East and Southeast Asia. From 1965 to 1996, countries in this region grew faster than those of all other regions around the world (see Table 2 and 3). Not everyone benefited equally but the boom was quite widespread. Most of these achievements can be attributed to the growth performance of the four tigers—Hong Kong, Singapore, South Korea, and Taiwan—and the three newly industrialized countries of Southeast Asia—Indonesia, Malaysia, and Thailand.

These economies shared some characteristics that helped in their stellar growth performance. These include, but are not limited to, more rapid output and productivity growth in agriculture; higher rates of growth of manufactured exports; steeper and faster declines in the fertility rate; higher growth rates of physical capital; higher initial levels and growth rates of human capital; and generally higher rates of productivity growth (Leipziger and Thomas, 1994; Page, 1994).

What were the sources of this success? World Bank (1993) tried to identify them so that it could be emulated in other developing countries. The World Bank study pointed to the unusually stable macroeconomic performance in these countries which provided the necessary structure for private investment (see Figures 1 and 2). Policies to increase the integrity of the banking system and make it more accessible to non-traditional savers raised the levels of financial savings. Labour force skills improved due to an education policy that focused on primary and secondary education; while agricultural policies emphasized increases in productivity and less reliance on agricultural taxes. Moreover, price distortions were kept within a small range. These economic fundamentals were supplemented with selective interventions by the government which took many forms, such as mild repression of interest rates, directed credit, promotion of selective industries, and trade policies favouring manufactured exports.

In short, the remarkable growth rate in East and Southeast Asian economies can be attributed to a set of common factors, including outward-oriented, market-friendly government policies, complemented with macroeconomic stability, agricultural development, investment in human resources, mobilization of savings, and high rates of productive investment (Stiglitz, 1996; Eggleston, 1997).

An important element in any successful explanation of the Asian currency crisis must therefore be an answer to the question of how a system that worked so well for so long could suddenly fail. The next section tries to tackle this issue. In order to get a better understanding of the causes of the crisis, it is important to begin with an overview of the magnitude and composition of capital flows in East Asia during the period leading to the crisis.

In the later part of the 1980s, the countries in East Asia led the developing world in private capital inflows (see Table 4 and Figure 2). Its share of total capital flows to the developing countries increased from less than 15 per cent in the early 1980s to almost half during the 1990s. The composition of capital flows also changed during this period. Towards the end of the 1980s, commercial bank lending was replaced by foreign direct investment (FDI), while in recent years portfolio flows and short-term borrowing have increased rapidly.

Another noteworthy characteristic of the East Asian countries was that the flow of private capital was preceded by an increase in investment. As shown in Figure 1, in the late 1980s and early 1990s, the increase in investment was financed mostly by increases in national savings (Alba *et al.* (1998). During the last few years, a much larger portion of the increase in investment was financed abroad. However, the amount of private capital flow far exceeded the amount of foreign savings absorbed leading to significant accumulation in international reserves (see Figure 1). The magnitude of capital inflow varied across countries, ranging from a low of 15 per cent of GDP in Korea to a high of 30 per cent of GDP in Malaysia and Thailand (Alba *et al.,* 1998).

TABLE 4
MAGNITUDE AND COMPOSITION OF CAPITAL INFLOWS, INVESTMENT, AND SAVINGS IN EAST ASIA
(AS A PERCENTAGE OF GDP)

| | 1985–8 | 1989–92 | 1993–6 |
|---|---|---|---|
| Net long-term capital flows | 1.4 | 3.0 | 6.2 |
| net official flows | 0.4 | 0.6 | 0.4 |
| net private flows | 1.0 | 2.4 | 5.8 |
| bank lending | 0.0 | 0.7 | 0.7 |
| portfolio bond | 0.3 | 0.1 | 1.0 |
| FDI | 0.7 | 1.3 | 3.0 |
| portfolio equity | 0.0 | 0.2 | 1.1 |
| IMF credit | -0.1 | -0.1 | 0.0 |
| Other private flows | -0.4 | -0.5 | -1.9 |
| of which: short-term debt | 0.2 | 0.7 | 0.9 |
| Investment | 32.1 | 34.9 | 38.2 |
| National savings | 31.6 | 34.0 | 36.1 |
| private | 24.5 | 28.3 | 30.2 |
| public | 4.8 | 5.8 | 5.9 |
| Current account deficit | 0.2 | 0.8 | 1.9 |
| Total capital inflows | 0.6 | 1.9 | 3.9 |
| Reserve accumulation | 0.7 | 1.6 | 2.3 |

Source: World Bank; Alba *et al.* (1998).

FIGURE 1
GDP GROWTH AND ITS COMPONENTS

Source: Alba *et al.* (1998).

FIGURE 2
TRENDS OF MAJOR MACRO VARIABLES

Source: Alba *et al.* (1998).

# III ORIGINS OF THE CRISIS

There is no single factor that can be identified as the major cause for the currency crisis in East and Southeast Asia. It is a fatal combination of several self-reinforcing factors that led to this crisis. The predominant factors can be identified as follows:

## 3.1 External sector problems

One of the common features that can be found among many of the countries affected by the currency crisis is the growing current account deficit and the misalignment in exchange rate. Tables 5 and 6 report the Current Account/GDP ratio and several other balance of payment figures for a number of Asian countries, respectively. In Table 5 (see also Figure 2), Malaysia and Thailand show a significant deficit in their current account. In Malaysia, the average deficit is about 6 per cent of GDP during 1990–6, while the ratio never falls below 5 per cent in Thailand since 1990. The Philippines also show a high current account deficit. Although Indonesia started the decade with a relatively high current account deficit, the situation improved during 1992–4 before worsening further. Korea's deficit, though low in the early years, shows signs of a sharp increase after 1995. However, it is nowhere close to the pronounced deficit problem found in the four countries discussed earlier. In contrast, two other countries reported in the Table, Hong Kong and Singapore show a persistent high surplus in their current account. Although China experienced a small deficit in 1993 and 1996, its current account has been in surplus for most of the remaining period. However, the surplus declined over the years.

TABLE 5
CURRENT ACCOUNT (AS A PERCENTAGE OF GDP)

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| China | 3.09 | 3.27 | 1.33 | -1.93 | 1.28 | 0.25 | 0.34 | |
| Hong Kong | 8.40 | 6.58 | 5.26 | 8.14 | 1.98 | -2.21 | 0.58 | |
| Indonesia | -2.82 | -3.65 | -2.17 | -1.33 | -1.58 | -3.18 | -3.37 | -2.2 |
| Malaysia | -2.03 | -8.69 | -3.74 | -4.66 | -6.24 | -8.43 | -4.89 | -4.9 |
| Philipp. | -6.08 | -2.28 | -1.89 | -5.55 | -4.60 | -2.67 | -4.77 | -5.2 |
| Singapore | 8.33 | 11.29 | 11.38 | 7.57 | 16.12 | 16.81 | 15.65 | 15.4 |
| S. Korea | -0.69 | -2.83 | -1.28 | 0.30 | -1.02 | -1.86 | -4.75 | -1.9 |
| Thailand | -8.50 | -7.71 | -5.66 | -5.08 | -5.60 | -8.06 | -8.10 | -1.9 |

Source: International Financial Statistics, February 1998. Figures for 1997 are from J. P. Morgan (brokerage firm).

Reisen (1997) has suggested that foreign savings, following excessive current account deficits, may not be beneficial if the savings are misallocated due to market distortions. As will be shown later in this study, that is exactly what happened in the Asian countries.

TABLE 6
BALANCE OF PAYMENTS 1985-96 (AS A PERCENTAGE OF GDP)

| | Current Account | Balance of Trade | Exports | Imports |
|---|---|---|---|---|
| Indonesia | | | | |
| 1985-89 | -2.5 | 6.0 | 21.9 | -15.9 |
| 1990-96 | -2.5 | 4.5 | 24.2 | -19.7 |
| Malaysia | | | | |
| 1985-89 | 2.4 | 13.6 | 56.1 | -42.5 |
| 1990-96 | -5.6 | 3.2 | 73.2 | -70.0 |
| Philippines | | | | |
| 1985-89 | -0.5 | -2.9 | 17.1 | -20.0 |
| 1990-96 | -3.3 | -8.7 | 17.4 | -26.1 |
| South Korea | | | | |
| 1985-89 | 4.3 | 3.5 | 30.7 | -27.2 |
| 1990-96 | -1.7 | -1.2 | 25.0 | -26.2 |
| Thailand | | | | |
| 1985-89 | -2.0 | -2.2 | 22.9 | -25.1 |
| 1990-96 | -6.8 | -4.7 | 29.6 | -34.3 |

Source: Radelet and Sachs (1998), Table 9.

It is true that the countries which suffered the greatest currency collapses—Indonesia, Malaysia, the Philippines, South Korea, and Thailand—are the ones who experienced huge current account deficit (see Table 6). However, countries with low current account deficit, such as, China and Hong Kong, and those with current account surplus, such as, Singapore and Taiwan, have also seen their currencies tumble. Hence the current account alone cannot explain the crisis.

If current account balances alone cannot explain the crisis, then the data on exchange rate misalignment can help to fill in some other pieces of the puzzle. Most of the countries in East and Southeast Asia pegged their exchange rate to a basket of currencies, where the US dollar was given the maximum weight. Many analysts have characterised this as an implicit peg to the US dollar. Exchange rates were maintained either with very little variation (Malaysia, Thailand, the Philippines) or small, predictable changes (Indonesia, Korea).

Data on nominal exchange rates in selected Asian countries are given in Table 7. During the 1990–6 period, the Malaysian ringgit and the Thai baht fluctuated against the dollar within a very small band. In the Philippines, the peso showed some fluctuation against the dollar in the early 1990s, but it was reasonably stable from 1994. Both the Korean won and the Indonesian rupiah depreciated steadily against the dollar. While the won depreciated by about 14 per cent over the 7 year period beginning in 1990, the rupiah fell by more than 27 per cent between 1990 and 1996. The Chinese yuan showed some decline in its value against the dollar during the early 1990s. China devalued its currency by about 50 per cent in 1994. Since then, yuan has been relatively stable.

TABLE 7
NOMINAL EXCHANGE RATE (IN TERMS OF THE US DOLLAR), PERIOD AVERAGE

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| China | 4.8 | 5.3 | 5.5 | 5.8 | 8.6 | 8.4 | 8.3 | 8.3 |
| Hong Kong | 7.8 | 7.8 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.8 |
| Indonesia | 1843.0 | 1950.0 | 2030.0 | 2087.0 | 2161.0 | 2249.0 | 2342.0 | 2909.0 |
| Malaysia | 2.7 | 2.8 | 2.5 | 2.6 | 2.6 | 2.5 | 2.5 | 2.8 |
| Philippines | 24.3 | 27.6 | 25.5 | 27.1 | 26.4 | 25.7 | 26.2 | 29.5 |
| Singapore | 1.8 | 1.7 | 1.6 | 1.6 | 1.5 | 1.4 | 1.4 | 1.5 |
| South Korea | 708.0 | 733.0 | 781.0 | 803.0 | 803.0 | 771.0 | 805.0 | 951.0 |
| Thailand | 25.6 | 25.5 | 25.4 | 25.3 | 25.1 | 24.9 | 25.3 | 31.4 |

Source: International Financial Statistics, February 1998.

During 1994 and early 1995, the US dollar depreciated in nominal terms against the Japanese yen and German mark. As a result, the East Asian currencies gained competitiveness as their currencies depreciated in trade-weighted terms. However, in the summer of 1995 the dollar started to appreciate against the major currencies, especially the yen. Over the following two years, the dollar appreciated by about 50 per cent against the yen pulling the Asian currencies along with it. With Japan being one of their major trading partners, these countries suffered substantial decline in competitiveness, with adverse effects on net exports and growth. These swings in competitiveness affected not only the current account but also the capital account of the balance of payments, mainly through their effects on the profitability of the production of traded goods and services and on investors' expectations of future exchange rate changes (IMF, 1998).

TABLE 8
PER CENT CHANGE IN THE CONSUMER PRICE INDEX

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|
| China | 3.5 | 6.3 | 14.6 | 24.2 | 16.9 | 8.3 | 2.8 |
| Hong Kong | 11.6 | 9.3 | 8.5 | 8.2 | 8.6 | 6.3 | 5.8 |
| Indonesia | 9.4 | 7.6 | 9.6 | 8.5 | 9.4 | 7.9 | 6.6 |
| Malaysia | 4.4 | 4.7 | 3.6 | 3.7 | 3.5 | 3.6 | 2.7 |
| Philippines | 18.7 | 8.9 | 7.6 | 9.1 | 8.1 | 8.4 | 5.0 |
| South Korea | 9.3 | 6.2 | 4.8 | 6.3 | 4.5 | 4.9 | 4.5 |
| Thailand | 5.7 | 4.1 | 3.4 | 5.1 | 5.8 | 5.8 | 5.6 |
| USA | 4.2 | 3.1 | 3.0 | 2.5 | 2.8 | 2.9 | 2.4 |

Source: International Financial Statistics, February 1998; Standard & Poor's (rating agency) DRI.

Table 8 shows the CPI inflation rate over the 1991–6 period for the United States and a number of Asian countries. Although the inflation differential between the United States and most of the Asian countries narrowed since 1994, the inflation rate remained consistently higher in the Asian countries. This means that the exchange rate in most of these countries appreciated in real terms. This resulted in an increase in the relative price of their exports in the world market and, hence, a decline in their real competitiveness.

Table 9 reports the relevant figures for the real exchange rates. Among the five countries considered for this study, only Korea showed a depreciation in the real exchange rate

between 1990 and 1996. Using 1990 as the base year, the Korean won depreciated by about 10 per cent over this period. On the other hand, currencies in the remaining four countries appreciated in real terms by varying amounts—from a low of 5 per cent in Thailand to a high of about 26 per cent in Hong Kong and the Philippines. Among the remaining countries, the appreciation was highest in Malaysia.

TABLE 9
REAL EXCHANGE RATE
(year end figure; average for year 1990 = 100)

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Hong Kong | 100 | 104 | 109 | 116 | 115 | 116 | 126 | 138 |
| Indonesia | 97 | 100 | 101 | 104 | 101 | 101 | 105 | 62 |
| Malaysia | 97 | 97 | 110 | 111 | 107 | 107 | 112 | 85 |
| Philippines | 92 | 103 | 107 | 97 | 112 | 110 | 116 | 91 |
| Singapore | 101 | 106 | 106 | 109 | 112 | 113 | 118 | 114 |
| South Korea | 97 | 92 | 88 | 85 | 85 | 88 | 87 | 59 |
| Thailand | 102 | 99 | 100 | 102 | 98 | 102 | 108 | 72 |

Source: J.P. Morgan.

It is interesting to note that countries which targeted exchange rate stability—Hong Kong, Malaysia, the Philippines, and Thailand—experienced a higher degree of real currency appreciation than countries, such as China or Korea, that followed a relatively flexible exchange rate regime.

One noteworthy characteristic that would be clear from the Tables on current account deficit and real exchange rate is that countries with an overvalued currency was more likely to experience a worsening of their current account. Malaysia, the Philippines, and Thailand experienced the largest appreciation as well as the highest current account deficits. On the other hand, China enjoyed a surplus in its current account along with a real depreciation in its currency (Corsetti *et al.,* 1998).

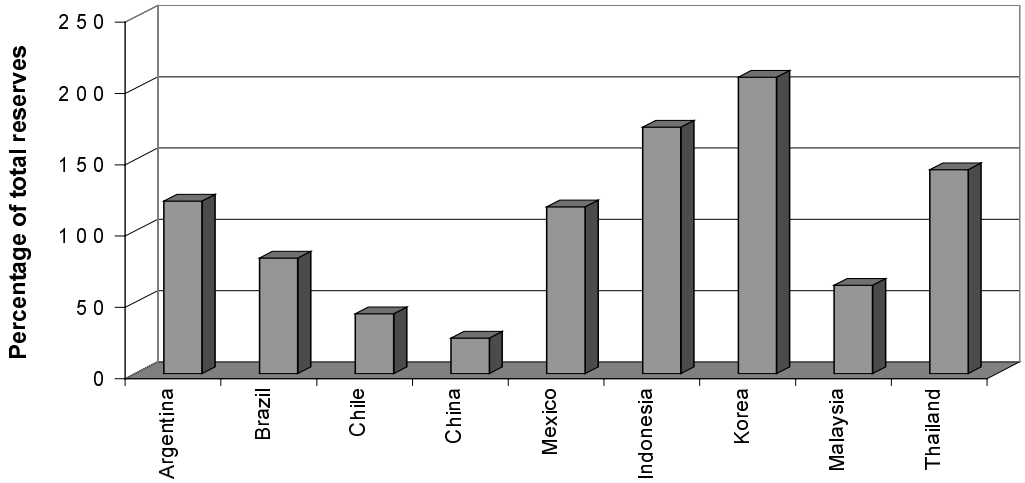
Another contributing factor to the external imbalances is the slowdown of exports in a number of Asian countries. Although the rising real exchange rate was not an issue until after mid 1995, tradable goods producers in these countries were under severe competitive pressure. Table 10 shows the growth rate of exports. Until 1995 all five countries reported impressive export growth. However, in 1996 the growth rate fell sharply in all countries, except the Philippines. In fact, the growth rate became negative in Thailand. Only the Philippines reported an increasing trend in export earnings. The fall in exports can be attributed to a number of factors. First, the slowdown of the Japanese economy in the early 1990s led to a decline in the demand for their goods in Japan. Second, as discussed earlier, the appreciation of the dollar since mid 1995 reduced the cost-competitiveness of their exports in the international market. The emergence of low-cost exports from Vietnam and South Asia did not help the situation either. Third, a glut in the global electronics market resulted in a sharp fall in export prices of products, such as, semi-conductors; this had a particularly adverse impact on Korea, Malaysia, and Thailand. Fourth, a widespread deceleration of imports by the industrial countries, especially in Europe, due to a sluggish growth also contributed to the slowing in export markets.

TABLE 10
GROWTH RATE OF EXPORTS

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|
| Indonesia | 13.50 | 16.60 | 8.41 | 8.78 | 13.39 | 9.68 |
| Malaysia | 17.03 | 18.13 | 16.11 | 23.05 | 26.63 | 10.13 |
| Philippines | 7.99 | 11.13 | 15.79 | 18.53 | 29.40 | 32.90 |
| South Korea | 10.23 | 8.03 | 7.69 | 15.72 | 31.52 | 4.14 |
| Thailand | 23.77 | 13.70 | 13.39 | 22.20 | 24.66 | -1.87 |

Source: International Financial Statistics, February 1998.

FIGURE 3
SHORT-TERM DEBT, JUNE 1997
(AS A PERCENTAGE OF TOTAL RESERVES)




Source: Bank for International Settlements; IMF International Financial Statistics.

Recent articles in the press[1] have suggested that the 50 per cent devaluation of the Chinese currency, the renminbi, in 1994 led to a deterioration in cost-competitiveness in East and Southeast Asia. However, the impact of this massive devaluation on the region is not very clear as by 1993 about 80 per cent of Chinese transactions were already settled at the swap market rate, so the devaluation in the official exchange rate affected only 20 per cent of the foreign exchange transaction (see Liu *et al.,* 1998).

Several empirical studies in the trade literature have argued that a country with a pegged exchange rate should have a substantial foreign exchange reserve and small external debt burden in order to finance its current account deficit at a low cost. Figure 3 shows the ratio of short-term external debt to external reserves in a number of countries in June 1997. In Korea, Thailand and Indonesia, short-term debt exceeded international reserves by a large margin, exceeding that for many other developing countries as shown in the figure. This high ratio of short-term debt to liquid foreign exchange reserves made these countries vulnerable to a potential run on their currencies (Alba *et al.,* 1998; Radelet and Sachs, 1998a, 1998b).

[1] See *The Financial Times*, 17 September 1997, and *The Economist,* 22 November 1997.

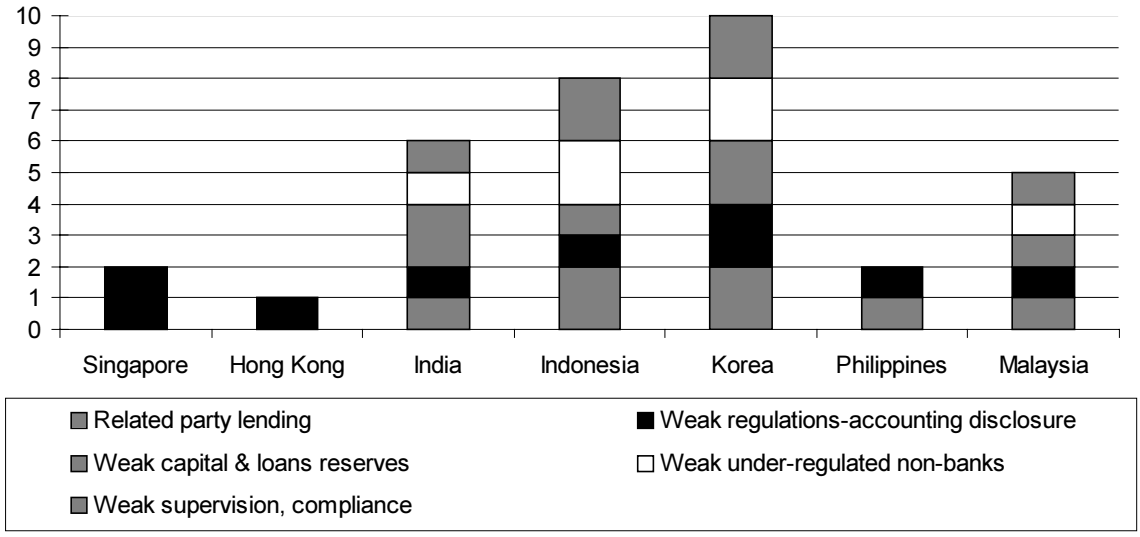
### 3.2 Financial sector weaknesses

If there is one single factor that can be picked as contributing to the vulnerability of the East Asian economies, it has to be the weaknesses in their financial system (Clessens and Glaessner, 1997). Insufficient capital adequacy ratios, inadequate legal lending limits on borrowers, inadequate asset classification systems and poor provisioning for possible losses, poor disclosure and transparency of banking institutions were common characteristics of the financial system in many of these countries (Alba *et al.,* 1998).

Kaminsky and Reinhard (1996), among others, have suggested that balance of payments crises are highly correlated with banking crises—evidence from the Asian countries strongly supports their view. The financial sector in these countries were deeply flawed due mainly to bad management, poor accounting, regulatory and supervisory standards, inappropriate financial liberalization, and over-optimism regarding the economy's long-term growth potential.

In many countries—of which Indonesia, South Korea, and Thailand are prime examples—the financial system was politicized: capital was channelled to politically preferred borrowers without any consideration of their repaying capabilities. Financial decisions were unduly influenced by non-economic considerations, giving rise to inevitable corruption. Figure 4 shows the financial weaknesses in these economies as perceived by the market in late 1997. Countries varied in terms of the perception of financial vulnerability. Korea appeared to be the most vulnerable among the group; followed by Thailand and Indonesia. The Philippines appeared to be the least vulnerable in the group. Each of the elements shown in the figure may not lead to a financial crisis on its own, but when combined with other weaknesses they can make the situation worse.

FIGURE 4
FINANCIAL FRAGILITY IN ASIA: CONTRIBUTING FACTORS




Source: Ramos (1997).

During the early 1990s, the countries in this region got caught up in a global wave of financial liberalization. Laws restricting capital flows were abolished. Tax incentives were given to offshore borrowing by financial intermediaries. A large number of bank and non-bank financial intermediaries, such as, the finance companies in Thailand, were created. However, the deregulation was not done in a prudent and properly sequenced way. Consequently, regulatory rules and agencies were not created at a fast enough pace in order to supervise these financial institutions (see Table 11). This led to bad management and lending practices and poor accounting (IMF, 1997; Claessens and Glaessner, 1997).

TABLE 11
BANK SYSTEM RISK EXPOSURE AND FINANCIAL INFRASTRUCTURE

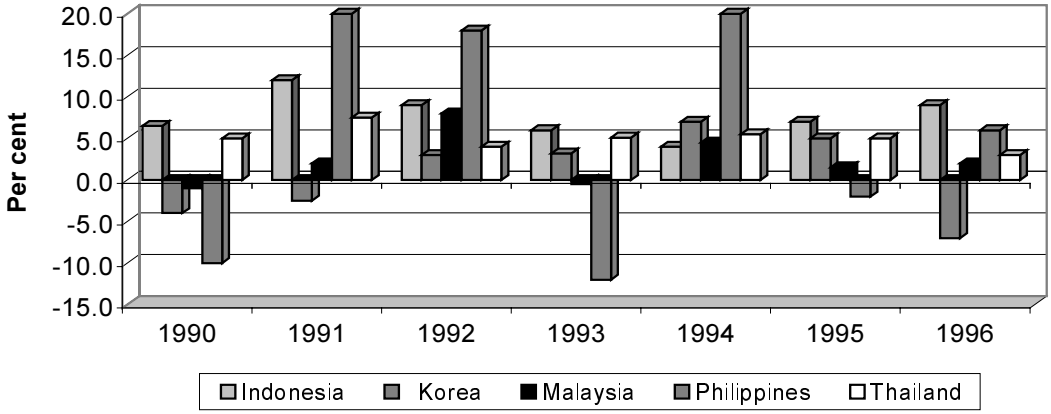
| | Indonesia | Korea | Malaysia | Philippines | Thailand |
|---|---|---|---|---|---|
| A. Regulatory features | | | | | |
| bank lending to connected firms | | high | high | | |
| government-directed bank lending | yes | yes | yes | yes | yes |
| bank deposit insurance | none | none | none | yes | none |
| accounting standards | weak | weak | | weak | weak |
| enforcement of existing regulations | weak | weak | weak | weak | weak |
| B. Incentives for capital flows | | | | | |
| short-term flows | few | few | few | free | few |
| long-term flows | limited | limited | promote | promote | promote |
| outflows | free | limited | limited | free | limited |

Sources: Folkerts-Landau *et al.* (1995); Reisen (1998).

Stiglitz (1998) has suggested that a combination of deregulated capital accounts and domestic under-regulation of the financial sector can be a cause of vulnerability to external shocks. An analysis of the East Asian countries will show that domestic and external financial liberalization had at least two reinforcing elements. First, there was an increased competition within the banking system as well as between banks and non-bank financial institutions that reduced the franchise value of banks and induced them to pursue risky investment strategies. Second, banks were borrowing heavily from foreign lenders, often in unhedged foreign currencies and through short-term lending. The high domestic interest rates relative to the interest rates in the United States and Europe attracted this foreign capital. Figure 5 shows the differential between the three-month domestic deposit rates and the three-month US LIBOR rate for the five countries. For each of the five countries, the differential widened during the 1995–6 period compared to the earlier periods.

In the absence of a strong bond and equity market, financial intermediation was done through the banking system. Thus the local banks and other financial institutions became the beneficiary of this capital flush. The relatively predictable nominal exchange rates with minimal fluctuations in these countries reduced the perceptions of exchange rate risks and thereby reduced the incentives to hedge external borrowing. The resultant accumulation of external liabilities was in the form of unhedged liabilities.

FIGURE 5
DIFFERENTIALS BETWEEN DOMESTIC DEPOSIT RATES AND US LIBOR




Source: Alba *et al.* (1998).

The financial intermediaries channelled this money to speculative investments and projects that were, if at all, marginally profitable. In Indonesia, Malaysia, and Thailand, a large proportion of this money went to real estate speculation. In South Korea, on the other hand, many banks were controlled by the *chaebols*, who channelled this money to large traded sector conglomerates.

Table 12 shows some revealing figures relating to these banking practices. A large proportion of the loans made by banks and non-bank financial institutions were of inferior quality. The amount of non-performing loans as a percentage of total loans in these countries gives some indication of the extent of this problem. Although the ratio varies across countries, it is substantially high in Indonesia, Malaysia, South Korea, and Thailand—the countries hardest hit by the crisis. The large amount of non-performing loans increased the credit crunch as banks were reluctant to foreclose and sell distressed assets.

Another area of concern had been lending to individuals and corporations against stocks as collateral, and bank's own equity investments. Banks in Malaysia, South Korea and Thailand were the hardest hit. As the Table indicates, exposure to the risks involving the property sector was also a major source of bank troubles. Finally, the banks in some of these countries were undercapitalised. The capital-asset ratio in Indonesia, Malaysia, South Korea, and Thailand hovered around single digit. As this ratio was less than the share of non-performing loans, bank capital had been practically wiped out. Only Hong Kong, Singapore, and the Philippines demonstrated a respectable capital-asset ratio.

One of the major barriers standing in the way of recovery for Asia's economies is the amount of bad debt totalling an estimated US$1 trillion. The cost to the economies of such staggering bad debt of the non-performing loans, as a percentage of GDP, varies from a low of 45 per cent in Thailand to a high of 60 per cent in Korea. The extent of the problem can be comprehended by looking at comparable figures from recent banking crises in Latin America.

TABLE 12
BANKING RISKS AND RELATED COSTS

A. Evidence of banking risks in the region, % (end of 1997)

| | NPL | | Property | Loans/ collateral | CAR |
|---|---|---|---|---|---|
| | 1997 | 1998 | | | |
| Hong Kong | 1.5 | 3.0 | 40-55 | 50-70 | 15-20 |
| Indonesia | 11.0 | 20.0 | 25-30 | 80-100 | 8-10 |
| Malaysia | 7.5 | 15.0 | 30-40 | 80-100 | 8-14 |
| Philippines | 5.5 | 7.0 | 15-20 | 70-80 | 15-18 |
| Singapore | 2.0 | 3.5 | 30-40 | 70-80 | 18-22 |
| South Korea | 16.0 | 22.5 | 15-25 | 80-100 | 6-10 |
| Thailand | 15.0 | 25.0 | 30-40 | 80-100 | 6-10 |

B. Non-performing loans and their costs, %

| | NPL | Resolution cost* |
|---|---|---|
| Indonesia | 75 | 50 |
| Korea | 50 | 60 |
| Malaysia | 35 | 45 |
| Thailand | 55 | 45 |
| *Historical crisis costs* | | |
| Brazil | 9 | 10 |
| Chile | 16 | 41 |
| Mexico | 11 | 15 |

Source: (A) J.P. Morgan; (B) *The Wall Street Journal*, 9 December 1998.

Notes: NPL = non-performing loans as a percentage of total loans. Property = property-sector exposure as a percentage of total loans. CAR = capital to asset ratio. *Resolution cost as a percentage of GDP. These costs include direct costs to government as well as quasi-fiscal costs such as exchange rate subsidies, as defined by the IMF. For the Southeast Asian countries, cost is calculated based on Barclays Forecasts for 1998 GDP. For the historical crisis costs, IMF calculations using GDP during restructuring period are used.

## 3.3 Debt indicators

Current account deficits, which represent the difference between national savings and investment, are financed by either a capital inflow or accumulation of debt. Capital inflow in the form of foreign direct investment is strictly non-debt creating. Otherwise, current account deficit lead to accumulation of foreign debt. This may be in the form of purchasing domestic bonds and equities by foreign nationals or foreign borrowing by the domestic banks. In the case of the Asian countries, foreign borrowing by the banking system financed the major portion of the current account deficit.

TABLE 13
STOCK OF DEBT TO FOREIGN PRIVATE CREDITORS, 1992–7

| | 1992 | 1993 | 1994 | 1995 | 1996 | Mid 1997 |
|---|---|---|---|---|---|---|
| A. Total debt (US$ billion) | | | | | | |
| Indonesia | 28.4 | 30.5 | 34.2 | 44.5 | 55.5 | 58.7 |
| Korea | 38.7 | 41.2 | 56.5 | 77.5 | 100.0 | 103.4 |
| Malaysia | 8.5 | 13.0 | 13.5 | 16.8 | 22.2 | 28.8 |
| Philippines | 6.9 | 5.8 | 6.5 | 8.3 | 13.3 | 14.1 |
| Thailand | 23.0 | 29.6 | 43.4 | 62.8 | 70.1 | 69.4 |

Table continues..

(Table 13 continued)

| | 1992 | 1993 | 1994 | 1995 | 1996 | Mid 1997 |
|---|---|---|---|---|---|---|
| B. Short-term debt (as percentage of total) | | | | | | |
| Indonesia | 60.5 | 61.7 | 61.8 | 61.9 | 61.7 | 59.0 |
| Korea | 71.4 | 70.8 | 71.1 | 70.0 | 67.5 | 67.9 |
| Malaysia | 48.1 | 56.8 | 48.8 | 47.2 | 50.3 | 56.4 |
| Philippines | 45.7 | 40.8 | 47.4 | 48.8 | 58.2 | 58.8 |
| Thailand | 69.4 | 72.1 | 71.0 | 69.4 | 65.2 | 65.7 |

Source: Bank for International Settlements; Azizul Islam (1998).

TABLE 14
DEBT INDICATORS (PERCENTAGE)

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|
| China | | | | | | | |
| Total debt/exports | 91.4 | 86.3 | 85.6 | 94.1 | 80.2 | 77.3 | 71.3 |
| Total debt/GNP | 15.6 | 16.0 | 17.3 | 19.9 | 18.6 | 17.2 | 16.0 |
| debt service/exports | 11.7 | 11.9 | 10.2 | 11.1 | 8.9 | 9.9 | 8.7 |
| short-term debt/total debt | 16.8 | 17.9 | 19.0 | 17.8 | 17.4 | 18.9 | 19.7 |
| Indonesia | | | | | | | |
| Total debt/exports | 233.9 | 237.4 | 230.2 | 212.6 | 231.8 | 234.1 | 221.4 |
| Total debt/GNP | 64.0 | 64.9 | 66.2 | 58.7 | 63.3 | 64.6 | 59.7 |
| debt service/exports | 33.3 | 34.3 | 32.6 | 33.6 | 30.7 | 30.9 | 36.8 |
| short-term debt/total debt | 15.9 | 18.0 | 20.5 | 20.2 | 17.7 | 20.7 | 25.0 |
| Malaysia | | | | | | | |
| Total debt/exports | 47.6 | 45.9 | 43.1 | 47.8 | 42.7 | 40.8 | 42.4 |
| Total debt/GNP | 40.1 | 40.7 | 36.8 | 43.8 | 43.6 | 42.5 | 42.1 |
| Debt service/exports | 10.2 | 7.6 | 9.2 | 8.6 | 9.3 | 7.8 | 8.2 |
| Short-term debt/total debt | 11.6 | 11.4 | 18.2 | 26.6 | 21.1 | 21.2 | 27.8 |
| Philippines | | | | | | | |
| Total debt/exports | 230.4 | 219.4 | 187.1 | 187.3 | 163.4 | 118.5 | 97.6 |
| Total debt/GNP | 68.7 | 70.5 | 60.7 | 64.9 | 60.8 | 51.8 | 47.3 |
| Debt service/exports | 27.0 | 23.0 | 24.4 | 25.6 | 18.9 | 16.4 | 13.7 |
| Short-term debt/total debt | 11.5 | 13.3 | 13.3 | 14.0 | 14.3 | 13.4 | 19.3 |
| South Korea* | | | | | | | |
| Foreign debt/GDP | 13.8 | 13.5 | 14.3 | 14.2 | 14.3 | | |
| Debt service/exports | 10.8 | 7.2 | 7.8 | 9.4 | 6.9 | | |
| Short-term debt/total debt | 30.9 | 28.2 | 27.0 | 25.9 | 25.5 | | |
| Thailand | | | | | | | |
| Total debt/exports | 89.8 | 99.9 | 97.4 | 106.2 | 111.7 | 112.2 | 120.5 |
| Total debt/GNP | 33.2 | 39.0 | 38.3 | 43.1 | 46.8 | 50.4 | 50.3 |
| Debt service/exports | 16.9 | 13.0 | 13.8 | 13.7 | 13.5 | 11.6 | 11.5 |
| Short-term debt/total debt | 29.6 | 33.1 | 35.2 | 43.0 | 44.5 | 49.4 | 41.4 |

Source: The World Bank; *Global Development Finance*, 1998.
Note: *Figures for South Korea are taken from Corsetti *et al.* (1998).

An alarming feature in most of these economies becomes evident once we consider the ratio of total debt to exports. Besides Malaysia, all the other countries show an extremely high ratio over time. Corsetti *et al.* (1998) have suggested that more relevant statistics for these economies would be the volume of international reserves relative to the debt service

because, in case of a liquidity crisis, international reserves must be enough to cover debt service including the roll-over of short-term debt (see Table 15). Among the countries reported, Indonesia, the Philippines and Thailand show alarmingly high ratio. Only in Malaysia was the ratio reasonably low. This explains why, in the face of a reversal in short-term capital flow, as discussed below, these countries had a hard time supporting their respective currencies.

TABLE 15
ADDITIONAL DEBT INDICATORS

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| China | | | | | | | | |
| STD/RES | 0.27 | 0.22 | 0.55 | 0.56 | 0.30 | 0.28 | 0.23 | |
| STD+DS/RES | 0.48 | 0.40 | 0.90 | 0.93 | 0.50 | 0.47 | 0.37 | |
| Indonesia | | | | | | | | |
| STD/RES | 1.29 | 1.38 | 1.57 | 1.44 | 1.46 | 1.74 | 1.66 | 1.70 |
| STD+DS/RES | 2.44 | 2.49 | 2.66 | 2.56 | 2.54 | 2.85 | 2.76 | |
| Malaysia | | | | | | | | |
| STD/RES | 0.18 | 0.18 | 0.20 | 0.25 | 0.24 | 0.29 | 0.40 | 0.61 |
| STD+DS/RES | 0.51 | 0.43 | 0.44 | 0.41 | 0.47 | 0.54 | 0.67 | |
| Philippines | | | | | | | | |
| STD/RES | 2.17 | 1.11 | 0.99 | 0.85 | 0.80 | 0.68 | 0.68 | 0.85 |
| STD+DS/RES | 3.94 | 1.88 | 1.79 | 1.68 | 1.45 | 1.37 | 1.17 | |
| Thailand | | | | | | | | |
| STD/RES | 0.58 | 0.68 | 0.70 | 0.89 | 0.97 | 1.11 | 0.97 | 1.45 |
| STD+DS/RES | 0.96 | 0.95 | 0.97 | 1.16 | 1.23 | 1.35 | 1.20 | |

Source: The World bank: Global Development Finance, Bank for International Settlement.

Note: STD = Short-term debt. RES = International reserve. DS = Debt service payments. For 1997, the figures are for the month of June.

### 3.4 Nature of capital flow

The sustainability of a current account deficit is determined, in many ways, by the composition of capital inflow. Short-term capital inflows are more volatile than long-term inflows while equity inflows are more stable than debt-creating inflows (Corsetti *et al.* 1998). Hence long-term equity investments are preferable for sustaining current account deficits.

Tables 16 and 17 report the relevant data for the countries in our sample; Table 17 shows that net external financing in the five countries almost doubled from 1994 to 1995. In 1996, it increased by more than 12 per cent. This sharp increase in capital inflow in these five countries can be attributed to both external as well as internal factors. Externally, liberalization in the developed capital markets helped the flow of capital to the emerging markets in general, and the Asian markets, in particular. Innovations of various financial instruments and derivatives also facilitated an easy flow of funds across countries. In addition, higher interest rates in these countries relative to the rates in the US or Japan attracted foreign capital. Domestically, financial deregulation, local government incentives, and perceived reduction in exchange rate risks due to predictable pegging to the US dollar also encouraged capital flow to these countries.

TABLE 16
NET PRIVATE CAPITAL FLOWS IN THE FIVE COUNTRIES
(annual averages; per cent of GDP)

| | 1975–82 | 1983–91 | 1992–96 |
|---|---|---|---|
| Indonesia | | | |
| net private capital flows | 1.1 | 2.6 | 4.8 |
| net direct investment | 0.5 | 0.6 | 1.8 |
| net portfolio investment | 0.1 | 0.1 | 0.7 |
| other net investment | 0.5 | 1.9 | 2.3 |
| short-term liabilities | -0.8 | 1.4 | 2.4 |
| Korea | | | |
| net private capital flows | 5.7 | -0.4 | 3.2 |
| net direct investment | 0.1 | 0.1 | -0.3 |
| net portfolio investment | 0.1 | 0.3 | 2.4 |
| other net investment | 5.5 | -0.8 | 1.1 |
| short-term liabilities | 3.6 | 0.6 | 2.7 |
| Malaysia | | | |
| net private capital flows | 5.1 | 4.1 | 10.5 |
| net direct investment | 3.7 | 3.6 | 6.5 |
| net portfolio investment | - | - | - |
| other net investment | 1.4 | 0.5 | 3.5 |
| short-term liabilities | 0.8 | 0.5 | 3.5 |
| Philippines | | | |
| net private capital flows | 5.5 | -0.8 | 4.8 |
| net direct investment | 0.5 | 1.0 | 1.7 |
| net portfolio investment | 0.1 | 0.1 | 0.1 |
| other net investment | 5.0 | -1.9 | 3.0 |
| short-term liabilities | 2.9 | -2.0 | 2.3 |
| Thailand | | | |
| net private capital flows | 4.0 | 5.7 | 8.8 |
| net direct investment | 0.4 | 1.3 | 1.0 |
| net portfolio investment | - | 0.8 | 2.2 |
| other net investment | 3.5 | 3.6 | 5.7 |
| short-term liabilities | 1.7 | 2.8 | 4.7 |

Source: IMF (1998).

Concentrating on the figures for 1996, only 19 per cent of the net private capital flow came in terms of equity investment by non-residents. Private creditors, mostly commercial banks, accounted for the remaining proportion of external financing.

Large surges of short-term and potentially reversible capital flows to developing countries can have adverse effects (Griffith-Jones, 1998). First, these surges present complex policy dilemmas for policy management, as they can initially push key macroeconomic variables—such as exchange rates, and prices of assets like property and shares—away from what could be considered their long-term equilibrium. Second, these flows present the risk of very sharp reversals. These reversals—particularly if they lead to currency and

financial crises—can result in serious losses of output, investment, and employment. And that is exactly what happened to the East Asian countries.

TABLE 17
EXTERNAL FINANCING IN FIVE ASIAN ECONOMIES (IN US$ BILLION)

| | 1994 | 1995 | 1996 | 1997[b] | 1998[c] |
|---|---|---|---|---|---|
| Current account balance | -24.5 | -41.4 | -55.2 | -27.1 | 30.6 |
| External financing, net | 45.2 | 84.6 | 95.2 | 18.1 | 25.9 |
| Private flows, net | 37.9 | 79.2 | 97.1 | -11.9 | -0.3 |
| equity investment | 12.1 | 15.4 | 18.7 | 2.1 | 16.4 |
| direct equity | 4.7 | 4.9 | 6.3 | 6.4 | 6.9 |
| portfolio equity | 7.4 | 10.5 | 12.4 | -4.3 | 9.5 |
| private creditors | 25.8 | 63.8 | 78.4 | -14.0 | -16.8 |
| commercial banks | 23.4 | 49.9 | 55.7 | -26.9 | -19.8 |
| non-bank private credit | 2.4 | 13.8 | 22.7 | 12.9 | 3.0 |
| Official flows, net | 7.3 | 5.4 | -1.9 | 30.0 | 26.2 |
| international finance institutions | -0.4 | -0.3 | -2.0 | 22.5 | 23.2 |
| bilateral creditors | 7.7 | 5.8 | 0.1 | 7.5 | 3.0 |
| Resident lending/other, net[d] | -15.2 | -29.2 | -21.6 | -30.5 | -4.6 |
| Reserves excl. gold (- = increase) | -5.4 | -14.0 | -18.4 | 39.5 | -51.9 |
| Memo: short-term credits, net | 7.3 | 40.4 | 38.5 | -41.7 | 42.8 |

Source: Institute of International Finance, April 30, 1998.

Note: a, the five countries are Indonesia, Malaysia, Philippines, South Korea, and Thailand; b, estimate; c, forecast; d, including resident net lending, monetary gold, and errors and omissions.

Comparing the flow of capital immediately before and after the crisis, that is figures for 1996 and 1997, net private inflow of private capital to the five Asian countries dropped by US$109 billion (from US$97.1 billion to -$11.9 billion). Direct equity investment remained relatively constant while portfolio equity investment dropped by US$16.7 billion. The bulk of the decline came from commercial bank lending which dropped by US$82.6 billion. The sudden reversal in net capital flow, following a sustained period of continuous increase, had a tremendous contractionary impact on these five countries by severely restricting domestic bank capital and, thereby, bank lending. The problem was exacerbated by two characteristics of this capital flow—the short-term nature and the foreign currency denomination of the debt. The magnitude of such reversal within such a short period of time cannot be explained solely by the underlying structural problems in these economies.

### 3.5 Was there a moral hazard?

There has been a significant amount of debate on whether the sudden flush of capital inflow to these countries was partially due to the presence of a moral hazard on the part of the foreign lenders. To analyse this issue, we can look at the five affected countries; Indonesia, Malaysia, the Philippine, South Korea, and Thailand. Bank lending to these five countries rose sharply after the Mexican bailout. Net new loans from banks increased from US$23.4 billion in 1994 to US$55.7 billion in 1996. Lending by the bond market also increased from US$2.4 billion in 1994 to US$22.7 billion in 1996, while equity investment increased by 50 per cent to US$18 billion.

But it is not at all clear whether this increase in capital flow reflects the expectation of bailouts, or a combination of abundant liquidity, higher return, and the perception that these were all well run, low-risk economies. A large portion of the investments went to areas, such as lending to companies, that were less likely to be bailed out. The fact that so much of the capital flowing to these economies was in this unprotected form may be evidence that moral hazard was not the dominant reason for the increase in capital flows. In a statement before the House Committee on Banking and Financial Services, the Federal Reserve Bank Chairman, Alan Greenspan, estimated that Asian equity losses, excluding Japan, since July 1997 would exceed US$700 billion of which more than US$30 billion has been lost by US investors. Substantial further losses are also expected in bonds and real estate sector.

One possible test for the presence of moral hazard would be to compare the performance of spread (the interest margin over riskless US Treasury bonds) of emerging market debt instruments with those on high-yield US corporate bonds. While both types of high yielding bonds carried similar rating, only emerging market debt would benefit from a potential IMF safety net. Available statistics show that between 1994 and 1997 spreads on high yield US corporate debt narrowed more than those on emerging market debt. This is just the reverse of what would happen if there was moral hazard. A relevant question may be: if moral hazard did not have an impact before the crisis, is it possible that it had an impact after the crisis?

The question whether IMF-sponsored safety nets encouraged reckless behavior by government of the borrowing countries is also doubtful. Despite rescue packages, countries were affected. For example, recent J.P. Morgan estimates show that, for instance, both Korea and Indonesia are likely to experience a decline in domestic demand in 1997 by about 20 per cent. If there was any moral hazard problem in Asia, it arose mainly in the expectation of bailouts within the domestic financial systems. This encouraged excessive borrowing by banks. If the IMF contributed to this problem, it was mainly due to the expectation of the investors that IMF would provide foreign exchange to service debt to foreign banks.

Another fact that needs to be taken into account is that the expectation and magnitude of IMF intervention varies from one country to another. For example, it is unrealistic to assume that Thailand is as important to the US and IMF as, say, Mexico. This is because of Mexico's geographical proximity to the US markets as well as it being a member of NAFTA. Hence the Mexican bailout is unlikely to set any precedent for the Asian countries.

### 3.6 Credit ratings

One important question is: did the market predict the downturn in these economies? Credit rating agencies provide an ongoing assessment of credit risk in the emerging markets. Any expectation of a financial crisis in a specific country would be recognised by these agencies and would lead to a decline in its credit ratings. Table 18 shows Moody's credit rating for the five countries. Comparing the ratings from December 1996 with those in June 1997 would show that none of the countries experienced a decline in their ratings

prior to the crisis. In fact, the credit ratings for the Philippines actually improved. Only after the crisis started in June, 1997 did Moody's reduce the credit ranking of South Korea and Thailand. On December 22, 1997, however, Moody's downgraded the sovereign debt of Indonesia, South Korea, and Thailand, putting them below investment grade. Downgrading the rating to this 'junk bond' status had at least two immediate implications. First, the letters of credit issued by the commercial banks in these countries to its exporters and importers were no longer internationally recognised. Second, the downgrading of the sovereign debt meant that no domestic enterprise could have a credit rating higher than the sovereign. This led to a large wave of debt liquidation by the creditors prompting runs on banks.

TABLE 18
MOODY'S LONG-TERM FOREIGN CURRENCY DEBT RATINGS, 1996–7

| | December 1996 | June 1997 | December 1997 |
|---|---|---|---|
| Indonesia | Baa3 | Baa3 | Baa3 |
| Malaysia | A1 | A1 | A1 |
| Philippines | Ba2 | Ba1 | Ba1 |
| South Korea | A1 | A1 | Baa2 |
| Thailand | A2 | A2 | Baa1 |

Source: J. P. Morgan.

Note: Moody's Rating System from highest to lowest:
Aaa, Aa1, Aa2, Aa3, A1, A2, A3, Baa1, Baa2, Baa3, Ba1, Ba2, Ba3.

This study has so far argued that none of the factors which have been put forward is, in itself, all that unusual, or sufficient to explain the magnitude of the crisis. It is the combination of these factors and the fact that they were self-reinforcing and mutually compounding that triggered the crisis When one weak link broke, it exerted more pressure on other linkages, which broke down under the heavy burden placed on them.

# IV EVENTS LEADING TO THE CRISIS

The first casualty of the currency crisis was Thailand, which was forced to abandon its pegged exchange rate in July 1997. Hence it would be natural to start this section with a discussion of the immediate events leading to the crisis in Thailand.

Thailand, with its liberal environment for investors and attempt to make the exporting sector the engine of economic development, was widely regarded as a model for other developing countries to follow. The Thai economy was surging, in part because Thais could borrow money at lower interest rates abroad in US dollars than in the domestic market in baht. Expecting strong economic growth, foreign lenders invested heavily in the country. Thailand's debt to foreign banks jumped from US$29 billion in 1993 to US$69 billion by June, 1997, two-thirds of which had a maturity of less than one year.

With ever-greater amounts of foreign money at their disposal, Thai banks and finance companies lent generously. They were lending long while borrowing short. Given the stable exchange rate between Thai baht and US dollar, some customers borrowed heavily in dollars, while others squandered the loans on commercial and residential real estate. A large amount of borrowing also went into funding private consumption without enough going into capital investment to enhance productivity.

The first warning regarding the unstable value of baht came in late 1996. Exports, the original engine of economic growth, began to stumble due to a recessionary trend in many of the developed countries and the resulting decline in the demand for export goods. At the same time, rising wage levels in Thailand led to intensified competition with low-wage countries, such as China and Vietnam. Moreover, from mid 1995 the dollar started to appreciate against the yen. Since the Thai baht was effectively pegged against the dollar, it led to an increasing loss of trade competitiveness and export shares.

A boom in the financial and real estate market continued to attract foreign capital. This capital, mostly short-term, made the funding of Thailand's huge current account deficit precarious. Currency speculators recognized the situation and made two initial attacks on the value of baht in late 1996. The Bank of Thailand confidently told investors that the baht's value would remain stable and were successful in, at least temporarily, preserving the currency value.

In February 1997, rumours started to circulate that Finance One, the country's largest finance company, was in trouble. In order to stave off any wide-ranging impact, the Bank of Thailand immediately arranged for the merger of Finance One with Thai Danu, a small commercial bank. This bailout of Finance One was intended to restore confidence among investors.

However, the deal began to unravel in the coming months due to extensive problems within Finance One. Nearly 60 per cent of its loans were in three areas, these being

property, hire purchase, and stock margin lending. With a slowing down of the economy and higher interest rates, Finance One's non-performing loans doubled in 1996, then doubled again during the first three months in 1997. Finance One also held substantial stakes in several smaller finance and securities companies which themselves were more vulnerable to the higher interest rates and falling stock prices. Not surprisingly, Danu Bank refused to continue with the merger.

In the meantime, the Bank of Thailand had locked up most of the country's foreign exchange reserves in forward contracts. In addition, the central bank's Financial Institutions Development Fund (FIDF) had lent over US$8 billion to struggling financial institutions, including Finance One. This lending had effectively drained the fiscal surplus of the Thai government built over the previous decade. The Bank had to print money to cover government expenditures.

In late June, the Bank was forced to shut down sixteen cash-strapped finance companies including Finance One. By shutting the finance companies in late June, the authorities changed the way foreign investors assessed Thailand. The belief that Thailand had an open capital market created a significant market distortion. When the Bank refused to act as the lender of last resort for the sixteen finance companies, it created an unprecedented panic among foreign investors thereby fuelling a run on the baht.

The Bank of Thailand employed selective capital controls in order to reduce foreign speculators' access to domestic currency credit. This led to sharp increase in interest rates in the offshore market. Yielding to central bank pressures, banks (the primary suppliers of baht) stopped providing short-term credit to speculators, thereby segmenting the onshore and offshore markets. As part of its intervention strategy, the Bank used the forward foreign exchange market. When forward contracts matured, foreign sellers of baht had to supply baht in exchange for dollars.

Limiting the availability of baht credit, the Bank forced speculators to square positions through the spot market by selling dollars for baht, thereby putting an upward pressure on the exchange rate. Moreover, restricting the sales of foreign holdings of Thai stocks for baht on Thailand's stock exchange and requiring that proceeds of sales be converted into dollars at the onshore rate also added to the speculators' cost.

The application of selective capital controls coupled with the absence of extensive liquidation of baht positions by domestic residents helped the Bank of Thailand to withstand the speculative pressure on the baht until late June. However, the onshore interest rates remained high as well as the attempts to arbitrage the differential between onshore and offshore rates continued. Above all, by accumulating 'large short foreign exchange position' on its forward book during the latest intervention phase, the Bank of Thailand significantly reduced its ability to continue indefinite intervention.

Finally, on July 2, the Bank stopped defending the baht's fixed exchange value against the US dollar, and floated the currency. This helped Thailand to temporarily avoid default on its international debt.

The exchange rate pressure in Thailand spilled over to the currencies in the neighbouring countries, including the Indonesian rupiah, the Malaysian ringgit, and the Philippine peso. Currency speculators across Asia looked more closely at their commitments to the region. They discovered that the other neighbouring countries shared some of the conditions prevalent in Thailand—fixed exchange rates, shaky banking systems with too much exposure to speculative real estate loans, huge unhedged short-term foreign debt, and lack of transparency in business and financial transactions. This led to panic selling of local currencies by companies who wanted to protect themselves because of their large US dollar-denominated debt. They bought US dollars as a hedge against future devaluation. Consequently, the rupiah, the ringgit, and the peso fell in value like dominoes in a row.

Let us consider the prevailing conditions in some of the other countries in the region. Malaysia had targeted an annual growth rate of at least 7 per cent until 2020. But the problem was that the quality of the economy's growth had been deteriorating over the last several years. One major concern was the chronic shortage of labour, which led to a faster growth of wages than productivity. The government encouraged investment in order to compensate for the lagging productivity. In 1996, investment accounted for about 43 per cent of GDP—the highest in the region. But due to huge investment in relatively unproductive ventures, the returns from these investments had been declining. The surge in investment also led to rise in imports. At the same time, exports started to slow down mainly due to competition from China and other lower-cost countries, and also due to Malaysia's slow ascent up the value-added ladder. This alarmingly raised the current account deficits.

However, unlike other countries, Malaysia's current account deficit had been financed by foreign direct investment, so its foreign bank debt was lower compared to Thailand. But the problem was that in Malaysia domestic bank lending grew at an alarming rate, rising to 170 per cent of GDP, the highest level of domestic indebtedness in the region, and much of this had gone into unprofitable investments leaving firms highly exposed. Unaware of any economic slowdown, local companies continued their surge in borrowing.

Several government decisions taken in haste increased the level of uncertainty in the economy; for instance in September 1997, the government briefly banned short-selling of stock. It also introduced a plan to use money from the state pension fund to prop up share prices by buying shares from local Malaysians at a premium to prevailing prices. So when the panic started after the fall of the baht in Thailand, Malaysia became one of the first countries to be affected.

The panic also spread to Hong Kong, where fast economic growth had been fuelled by heavy borrowing. One cause for this panic was the uncertainty about Hong Kong's ability to sustain its currency peg to the US dollar following the realignments of other Southeast Asian currencies. In addition, the US dollar's nominal appreciation against the Japanese yen pulled the Hong Kong dollar along with it. Moreover, Hong Kong's inflation rate had consistently been higher than the US rate indicating that Hong Kong's currency had appreciated in real terms relative to the US dollar. Amid the mayhem, Hong Kong's *de facto* central bank, the Hong Kong Monetary Authority, stood firm and talked tough. It spent an unknown portion of its almost US$100 billion pool of foreign reserves to defend the fixed value of its currency against the US dollar.

To defend the peg, the Hong Kong Monetary Authority reduced liquidity, thereby raising money market rates. Hong Kong's fixed exchange rate system, known as a currency board, gave its monetary authority a tool not enjoyed by any other central bank in the region—an automatic and theoretically unassailable mechanism for keeping exchange rate stability—no matter how high interest rates must go. Despite the wave of currency depreciation that swept through the region, only the Hong Kong dollar could cling on to its peg to the US dollar.

In the case of Indonesia, overinvestments in the non-traded sector and manufacturing industry—that requires high protection and a weak financial system—are the roots of the present financial crisis (Nasution, 1996). The crisis was aggravated by political uncertainty and lack of government determination to adopt sound macroeconomic management. The investment has been funded by huge capital inflows as evidenced by large current account deficits and rising external debt. After facing increasing selling pressure in the wake of the baht devaluation, the Indonesian authorities abandoned the rupiah peg on August 14, 1997. The floating of the exchange rate was preceded by futile interest rate defence in late July and early August. By mid September, the rupiah depreciated by about 60 per cent. In response, the authorities announced a wide range of reform initiatives and sought IMF assistance in stabilizing the economy. During October and early November, there was some sign of stability as both the exchange rate stabilized and the interest rates fell to the pre-crisis levels.

However, in late November events took a turn for the worse due to uncertainty regarding the implementation of the economic reforms, increasing pessimism about the economy's prospects, and lack of confidence in the political leadership ignited by the closure of 16 cash-strapped private banks. By late January, 1998 the rupiah traded at 13,000 to the US dollar compared to 2,400 to the US dollar in July 1997. A combination of a sharp decline in the value of the rupiah and a sharp increase in domestic interest rates hurt the balance sheets of business firms leading to a severe liquidity crisis. The immediate impact of this crisis was reflected in the segmentation of the banking sector, with weaker banks relying on extensive liquidity support, and the stronger banks dealing with prohibitively high interest rates. Despite these high rates, the rising inflation and the lack of confidence in the banking sector led to an increased demand for cash. Moreover, the subsequent low real interest rates curtailed the ability of the monetary authorities to absorb excess liquidity through open market operations (Goldfajn and Baig, 1998).

The next domino to fall was South Korea. For years, the Korean government had used the banking sector to finance its industrial policy. It diverted bank loans to preferred sectors of the economy at attractive rates. Business firms came to expect the government to bail them out during financial crisis. This encouraged them to borrow excessively and invest in risky projects. The debt-laden *chaebols*, or conglomerates, diversified in too many areas and also borrowed liberally from abroad. In 1996, the top 30 *chaebols* had an average debt-equity ratio of 400 per cent, compared with less than 75 per cent in the United States. Moreover, in mid 1997, Korea's short-term debt was more than three times its foreign exchange reserves, the highest in the region.

In early 1997, several Korean conglomerates, having borrowed heavily, failed leaving domestic banks with a huge amount of bad loans. When exports slumped and the domestic currency, the won, started to decline in value, the domestic firms found it difficult to service their foreign loans. Foreign lenders declined to roll-over short-term loans. This led to a flurry of selling of the won in the foreign exchange market. By mid November, the Central Bank of Korea stopped defending the currency, and the won collapsed.

# V THE ROLE OF THE IMF

The role of the IMF during the Asian crisis has increasingly come under the spotlight. The IMF has signed massive financial packages totalling more than US$100 billion with Indonesia, South Korea, and Thailand. These bailout packages are conditional on structural adjustment measures and reforms in the banking sector. Fischer (1998) assumes that a fiscal surplus would free resources to cover the cost of restructuring. Similarly, he argues that banking reforms including closures of insolvent banks are necessary to accelerate the restructuring process of the financial sector. Some of the IMF-sponsored reforms, if properly implemented, might help the economies in the long run. But the nature of IMF's intervention is making things worse, at least in the short run. This can be attributed to several factors.

First, the IMF's insistence on structural reforms in areas which are unrelated to the immediate problems facing these economies has increased the sense of panic among investors. It sends a signal that these economies are basically unsound and need a complete overhaul, notwithstanding their sustained economic growth during the last three decades. This obviously frightens potential investors and lenders. The IMF's immediate concern should be to insist only on policies that are needed to restore a country's access to the global financial market.

Second, with a view to stabilize the currency market and discourage competitive devaluation, the IMF has forced these countries to maintain a high level of real interest rates. But the current conditions in these countries are not conducive to a high rate. It only provides a perception of an uncertain future and further discourages foreign investment in the area (Radelet and Sachs, (1998a). The impact of high real interest rates is already being felt in several countries, especially Indonesia and South Korea. Business enterprises, which are already indebted, find their existing illiquidity problem quickly changing into an insolvency problem. This has forced companies to cut back production levels, sell inventories, let go employees, and fail to repay debt. This creates a snowball effect in the economy by increasing the banking system's bad loan accumulation and weakening their capital base.

Third, IMF traditionally holds back on disbursing funds from their bailout package until the borrowing country carries out necessary structural reforms. Such conditionality violates the intent of a lender of last resort.

Fourth, the contractionary budget policies required of the borrowing country also delays the recovery process. It seems that the IMF has finally realised the folly of this requirement and recently relaxed some of the fiscal constraints imposed on Indonesia, South Korea, and Thailand.

Finally, IMF's insistence towards a regime of capital account convertibility that includes free flow of capital is pushing these countries towards more uncertainty as their economy is not robust enough to be exposed to the shocks that unhindered capital flows can bring.

# VI POLICY IMPLICATIONS

Asia's financial crisis will almost certainly lead to important changes in the international financial system, as countries try to find an appropriate balance between the benefits from gaining access to international capital flows, and the potential for instability and other risks that also seem to be much greater in a world of large and highly mobile capital movement. What can we learn from the recent experience with this currency crisis? Although the crisis is not yet definitively over, some issues relating to the problems of crisis management can already be identified. Thus an objective analysis of the events would provide important lessons for analysts and policymakers. Some of these lessons are more obvious than others. Some are preventive, designed to reduce the probability of financial crisis in the future, while others are more fundamental in nature.

One of the major lessons of the Asian crisis is that improperly sequenced financial liberalization in the presence of a weak domestic financial system increases vulnerability to speculative attacks. In order to develop the domestic financial system, governmental supervision and prudential regulation should be aimed at creating competent management, effective risk-control systems, adequate capital requirements, lender of last resort facilities, supervisory authorities with sufficient autonomy, and control of cross-border banking (Bustelo, 1998; Griffith-Jones, 1998).

Another lesson that can be learned from the Asian crisis is that it is not enough for a country to achieve sustained economic growth. The Asian economies were highly commended not too long ago for their rapid growth. Fiscal policy was not profligate, monetary policy was not inflationary, and the countries achieved high savings and investment rates. However, these fundamentals alone were not enough to insulate an economy from a crisis. What is crucial is that countries also try to keep other fundamentals sound. Moreover, the appropriateness of financial and exchange rate policies also matter. For example, pegging the exchange rate helps to create an environment where investors and traders can predict their future plans. But such policies are more difficult to maintain in the presence of weak domestic financial institutions and large-scale fluctuations in the value of international currencies.

The Asian crisis can be described as a 'capital account crisis' as opposed to a 'current account crisis'. The quick reversal of short-term capital flow denominated in foreign currency triggered this crisis. As Griffith-Jones (1998) has shown, short-term and potentially reversible capital inflows tend to alter important macroeconomic variables, such as exchange rates and asset prices. An important lesson is that while the long-term benefits of free capital movement is generally acknowledged, certain steps must accompany capital account liberalization in order to reduce volatility. These steps relate to the institutional capacity of the domestic economy and the proper sequencing of the liberalization programme. Potentially more stable, long-term capital inflows should be initially liberalized, rather than short-term borrowing denominated in foreign currency.

Griffith-Jones (1997) has suggested that capital accounts should be liberalized slower and/or more controls and/or taxes introduced to discourage short-term capital inflows. Both the IMF (1995) and the Bank for International Settlements (1995) have recognised that, though having some limitations, measures taken by recipient governments to discourage short-term capital flows—when combined with other sound macroeconomic policies—play a positive role in managing these flows effectively and, thus, reduce the possibility of a destabilizing financial crisis. In fact, Calvo and Goldstein (1995) have suggested that measures, such as controls/taxes on short-term capital movement, should become part of a revised 'Washington consensus'.

One characteristic common among the affected countries is that they have encouraged behind-the-scenes mechanisms for capital allocation. It is true whether we are considering the government-linked banks in Indonesia, *chaebol*-controlled banks in Korea, or the finance companies in Thailand. In all cases, capital allocations were made based on personal or business relationships or government influence. As is evident from the discussion in the previous sections, this led to increasingly poor investment decisions.

So one of the immediate lessons of this crisis is the need to strengthen the structure and supervision of the financial systems in the emerging economies. Stronger prudential supervision would involve better monitoring of how banks raise the funds that are lent, both short- and long-term, and in local and foreign markets. It would require monitoring the concentration of their lending portfolios and their consequent exposure to certain sectors; the adequacy of their capital; and the disclosures of, and provisions for, non-performing loans. A well-functioning banking system, free from the pressures of connected or command lending, can act as the stable core of the financial sector.

A necessary corollary is that the international capital market can function more efficiently when complete, accessible and timely information flow is available. Lack of information certainly exacerbated the financial crisis in Asia. Hence transparency at all levels—local, national, and international—is essential if domestic and foreign officials are to successfully monitor, supervise and warn of any impending danger. However, better information by itself is not a sufficient condition for eliminating such crises. What is also needed is the vision to imagine crises and the willingness to act pre-emptively.

Another fundamental lesson from the currency crisis would be to avoid an early misdiagnosis of the crisis. For instance, Thailand's financial crisis was initially seen as a liquidity problem rather than an issue of solvency. Valuable time was lost before the government began to realize that a fundamental change in economic policy was required.

The weak initial response to the crisis by many Asian governments prolonged the debacle. In Thailand, for example, the government's political weakness clearly hampered efforts to change. In Malaysia, where political decision-making is more concentrated, there had been resistance to the notion that current difficulties have partial home-grown characteristics. Similar obstacles were present in Indonesia and the Philippines. The government's response should be swift and resolute. They should act fast to clean up financial systems hobbled by bad debts. The speed and scope of needed reform should not be underestimated.

The crisis highlights the need for strong capital markets in the developing countries as a source of capital that is both cheaper and less volatile than offshore borrowing. A well-functioning equity and bonds market would divert capital flows into more efficient use by placing investment projects under rigorous market test. It would also improve corporate governance through close monitoring in the market. One of the problems faced by domestic borrowers in Asia was the mismatch in maturities—they were borrowing short but investing long. A well-developed capital market would help to avoid such a problem by encouraging more stable cross-border investment.

Another important lesson is that regional efforts should be strengthened in order to avoid the recurrence of a similar crisis. The contagion effect was strongest among neighbouring countries in Asia. Hence a regional economic monitoring system which involve peer surveillance and a better perspective arising from the knowledge of local conditions would help to prevent future crisis. In order to avoid quick reversal in short-term capital flows in the global market, there is clearly a need for an architecture of the international financial system in order to monitor international capital flows more actively and quickly identify potential trouble spots.

A final lesson would be the need to create an international lender of last resort to prevent future currency crisis. The volatility of capital flows under a liberalized financial system requires the presence of an international lender of last resort to prevent liquidity problems turning into solvency problems. The need cannot be more apparent than by looking at the experience of the five most affected Asian economies where combined net interbank lending and lending to non-banks ran at an annual rate of US$22 billion between the third quarter of 1996 and the third quarter of 1997. Then, in the fourth quarter, the inflow suddenly turned into an outflow of US$32 billion.

Under the current international financial system, donor agencies—such as, the World Bank, the Asian Development Bank, etc.—can step up issuance of bonds. These would be bought by central banks with large foreign exchange reserves. Proceeds could then be lent to economies with temporary liquidity problems. The donor agencies issuing the bond would assume all credit risk associated with lending to the troubled economies. It would in effect act as a central bank to the national central banks. The rationale for such an approach is that a country may be less willing to provide liquidity to a troubled economy, but it might be more willing to provide money to institutions, such as the World Bank.

These various steps represent a huge agenda for the future. But however much we try to prevent financial crisis in the future we need nevertheless to be prepared for them to happen.

# VII FUTURE OUTLOOK

After the analysis of what went wrong and what we can learn from the crisis, comes the analysis of what happens next as Asian countries try to find their way back to economic stability and growth. The real challenge facing the global community is to find ways for quickly restoring confidence in these economies through voluntary financial flows and investment spending.

## 7.1 Long-term outlook

Since the beginning of 1998, market conditions in some of the affected countries have improved. Huge corrections in current account balances and private-sector debt adjustments have reduced the balance of payments problem, thereby easing the liquidity crunch.

TABLE 19
DEPRECIATION IN EXCHANGE RATES AND STOCK INDICES

| Per cent change from | 1.7.97-31.12.97 | 31.12.97-1.5.98 | 1.7.97-1.5.98 |
|---|---|---|---|
| A. Depreciation in exchange rates | | | |
| Indonesia | -55.8 | -31.2 | -69.6 |
| Korea | -47.5 | 26.7 | -33.5 |
| Malaysia | -35.2 | 5.7 | -31.5 |
| Philippines | -34.5 | 0.6 | -34.9 |
| Thailand | -47.6 | 21.2 | -36.5 |
| B. Depreciation in stock indices | | | |
| Indonesia | -45.4 | 14.5 | -37.0 |
| Korea | -51.6 | 11.9 | -45.8 |
| Malaysia | -45.7 | 6.2 | -42.3 |
| Philippines | -32.4 | 16.7 | -21.1 |
| Thailand | -35.7 | 12.7 | -27.5 |

Source: Board of Governors of the Federal Reserve System.

It seems that the worst of the financial crisis is over. Asia's slumping economies have hit bottom and most are poised to begin their bumpy recovery from recession in 1999 as currencies stabilize. Table 19 and Figure 6 show the performance of two financial indicators—exchange rate and stock prices—in five countries. Economies that suffered massive depreciation last year have regained some ground since the beginning of this year. The Thai baht and Korean won have both strengthened by more than 40 per cent since their respective lows in January and mid December. In addition, the stock markets in these two countries have also recovered from their levels at the beginning of the year. Stock markets in other countries in the region have also recouped some of their losses. Indonesia is the only exception, where the value of rupiah continues to slide. Besides the Philippines, the interest rates remain above their pre-crisis level in all countries.

FIGURE 6
POST-CRASH EXCHANGE RATE AND STOCK PRICE INDEX

Source: Bloombergs (forecasting agency).

Despite improvements in market conditions, the countries affected by the currency crisis are now experiencing a recessionary trend. Sharp currency depreciation has not spurred rapid growth in their dollar exports, which would have provided the underpin for a rebound in economic activity in the region. One reason may be that currency devaluation and collapsing asset prices not only caused steep reductions in wealth and buying power, but also disrupted the balance sheets of lenders and borrowers in these countries (Moreno, 1998). Many Asian firms have found themselves insolvent as the currency collapse increased their debt burden, which were unhedged and dollar-denominated. The fragile balance sheets of borrowers have weakened the financial position of banks, producing a severe credit crunch. In Indonesia, Korea, and Thailand, this has turned out to be the major obstacle to recovery.

Indonesia's outlook is, by far, the most precarious. The economy is facing its first recession in thirty years with GDP contracting by more than 6 per cent in the first quarter of 1998 compared to the same period last year. In all likelihood, the economy will contract by more than 16 per cent in 1998 and a moderate 3 per cent in 1999. Unemployment and inflation figures are also bleak. Unemployment in 1998 could reach as high as 17 per cent of the work force. Half of its 200 million people now live in poverty. That's up from 11 per cent in 1996. As inflation increased and public austerity programmes took effect, there was an increasing risk of major social unrest—a fear borne out by the riots that led to President Suharto's resignation in May.

Ever increasing food prices due to adverse weather conditions, distribution bottlenecks, declining value of the rupiah, and political uncertainty and turmoil after the fall of the Suharto regime, may still have a destabilizing impact on the economy. A US$43 billion bailout package has been negotiated with the IMF. The initial package, renegotiated twice, calls for tight monetary policy in order to strengthen the rupiah and reduce inflation rates.

The Hong Kong economy faces the worst downturn in decades. The economy is expected to shrink by 5 per cent in 1998. The 7 per cent decline during the third quarter of 1998 dwarfs the previous record—4.7 per cent decline in the third quarter of 1974—and marks the first time since the early 1960s that the economy has shrunk three straight quarters. The economy contracted 2.7 per cent in the first quarter and by 5.2 per cent in the second quarter of 1998. The unemployment rate is at its highest level in fourteen years. The economy has been hard hit by a sharp fall in the value of private housing. The sustained rise in interest rates in order to defend the currency peg has wiped out about US$175 billion from the value of the total stock of private housing. The government has already announced stimulus measures to improve bank liquidity, shore up the property market, and tackle the rising unemployment problem. The government is walking a tightrope by trying to bolster confidence in the economy without compromising its non-interventionist credentials.

Thailand is expecting a 7 per cent decline in GDP in 1998. Last year, the government negotiated a US$17.2 billion package with the IMF, contingent upon a number of economic reform measures. Among the countries in this region, Thailand has been the most aggressive reformer making substantial progress in addressing the structural problems. The government has announced measures to restructure the financial and banking sectors by closing down most of the troubled finance companies, selling two

banks to foreign interests, and making provisions for enacting a bankruptcy law later this year. However, the high ratio of loans to deposits and the large volume of banks' net foreign liabilities still make the economy vulnerable.

The GDP growth rate in the Philippines for 1998 has been revised downward to around 3 per cent. Since the crisis, the peso has fallen by 30 per cent against the US dollar. Nevertheless, prime lending rates are slowly declining, and Manila's stock market has recovered by 50 per cent from its lowest point in late 1997. Through necessary reforms in the financial system, the economy has managed to remain in relatively good shape. The nation's presidential election held in May should not derail the reform programme.

The balance of payments crisis in South Korea in December 1997—prompted by the contagion effects from speculative pressures on the region's currencies—forced the government to negotiate a US$58 billion support package with the IMF. The package involves tightening of monetary and fiscal policy, restructuring of the financial sector and corporate governance, and liberalizing foreign exchange transactions.

South Korea reported nearly 9,500 corporate bankruptcies in the first quarter of 1998, up 50 per cent from the previous quarter. The unemployment and inflation rates are around 7 and 9 per cent respectively, leading to large-scale labour unrest. GDP growth rate is expected to decline by 2–3 per cent this year. The recovery prospects in Korea are limited by the excess capacity in its leading industries. Moreover, efforts by the Korean government to force small and medium-size insolvent companies to bear most of the financial pressure, thereby avoiding confrontation with strong labour unions at large companies controlled by *chaebols*, or conglomerates, is also slowing down the recovery process. The Malaysian economy, despite government efforts to prevent a slowdown, is also showing signs of contraction.

The recovery process for these countries can be broadly divided into three phases. Although these phases are quite distinct, there can be some overlap.

### *7.1.1 Phase I*

This is the most crucial phase in the overall recovery process. In this phase, policies designed to address the causes of the crisis need to be formulated. This would require appropriate monetary policy to stabilize the exchange rate, create a necessary prerequisite for a much-needed overhaul of the financial system, recapitalize and restructure the banking system and, most importantly, strengthen central bank supervision of the financial sector. Available statistics show that all the affected countries in the region are in this phase, and most entered the phase in early 1998. Indonesia, on the other hand, had to wait till May (signing the third agreement with the IMF) before entering Phase I.

One notable phenomenon of this phase has been the huge corrections in current account balances across the region. During the first quarter of 1998, Korea, for example, showed current account surplus for three consecutive months. The trade surplus during the six months ending in February 1998 for the core group of ASEAN countries was US$10.4 billion. This represents a US$21.2 billion turnaround from the previous year. However, what is interesting is that this turnaround is entirely due to the collapse in imports (see

Table 20). Imports remain very weak across the region reflecting the weakness in domestic demand, and breakdowns in the financial systems indicating that even the most creditworthy customers are having trouble obtaining trade finance. This situation cannot be sustained in the long run. Domestic demand is weak due to depressed consumption and investment level. Consumption is hurt by rising structural unemployment while company bankruptcy and corporate restructuring is keeping investment low. Hence, any economic recovery in this region has to be led by a recovery in exports. Given that the Asian economies rely heavily on trading with one another, this may take some time. Exports are also limited by the liquidity crunch, slow progress in corporate debt-rescheduling, and the lack of working capital.

TABLE 20
US DOLLAR-DENOMINATED MERCHANDISE, EXPORTS AND IMPORTS
(June 1997 = 100; 3-month moving average, seasonally adjusted)

| | September 1997 | December 1997 | Latest | 1998 |
|---|---|---|---|---|
| A. Exports | | | | |
| China | 103.4 | 100.4 | 114.3 | March |
| Hong Kong | 103.0 | 100.1 | 93.5 | February |
| Indonesia | 104.3 | 97.9 | 101.1 | January |
| Malaysia | 99.3 | 94.8 | 95.1 | February |
| Philippines | 101.2 | 107.0 | 109.9 | February |
| Singapore | 98.8 | 98.4 | 94.6 | February |
| South Korea | 103.1 | 98.5 | 103.6 | March |
| Thailand | 98.5 | 102.7 | 98.3 | March |
| B. Imports | | | | |
| China | 102.8 | 103.1 | 109.5 | March |
| Hong Kong | 104.3 | 105.2 | 99.2 | February |
| Indonesia | 96.0 | 93.1 | 82.0 | January |
| Malaysia | 90.2 | 86.1 | 78.9 | February |
| Philippines | 103.9 | 104.1 | 100.3 | February |
| Singapore | 103.6 | 95.9 | 86.9 | February |
| Thailand | 89.3 | 78.0 | 62.8 | March |

Source: J. P. Morgan.

Prospects of a Korean export boom are clouded by the weakness of a Japanese yen, while the decline in demand conditions in Japan and other Asian countries have depressed exports from Indonesia and Thailand. Indonesia has great export potential because of its focus on the export of labour-intensive primary goods.

The Philippines stand out for its strong export performances since mid 1997. The country has benefited as only about 40 per cent of its exports are with other Asian nations and as recent capital investment in high-end electronics have improved its export capability. However, with global demand for electronics basically slowing down, the Philippines may face some obstacles in the near future in maintaining their export growth.

### *7.1.2 Phase II*

In this phase, we can expect a recovery of private investment capital inflow. This will require confidence in government policies, as well as decline in the inflation rate. This

would enable a sustainable reduction in interest rate. Proper inflation rate and interest rate policies by respective government would play a key role in determining the length of this phase. The earliest the countries can expect to reach the second phase would be the first half of 1999; however it depends on some short-term concerns as discussed below.

### *7.1.3 Phase III*

The third and final phase of the recovery process will be reached when the recapitalization of the financial system has been largely accomplished and when the levels of private consumption and private investment have reached the pre-crisis level. I would expect the countries in this region to move to this final phase sometime in early 2000.

## 7.2 Short-term outlook

Asia's financial markets, which appeared to be recovering quite well earlier this year from their devastating collapse in 1997, have weakened again. At a time when international agencies were commissioning reports to find out if the worst is finally over for the East and Southeast Asia's ailing economies, pessimism has struck one more time.

The latest crisis has been precipitated by news from two fronts. First, Japan's economic woes and the resulting fall in the value of the yen; and second, the threat that China may be forced to devalue its own currency, the renminbi. The fall in the value of the yen against the dollar can be traced to the weak market fundamentals in Japan. Persisting pessimism about the economy and the financial system has contributed to this slide. The economy is currently in a recession and is slow to recover. The returns on yen-denominated assets remain hopelessly out of line with those in the rest of the world thus frustrating market participants. Worries about job prospects have cut down consumer spending adding to self-reinforcing deflationary spirals.

Moreover, the strong showing of the US economy with falling unemployment and stable inflation, and the prospects of higher US interest rates have also contributed to a strong dollar by keeping foreign investors interested in buying US treasury bonds. The rosy economic picture in the US highlights the sharp difference between its robust economy and that of Japan, where unemployment is rising. The yen's fall threatens to deepen Asia's economic troubles at a time when stabilizing currencies is a key goal towards pulling the region out of the financial crisis. It is causing substantial pain to the Asian economies as Japan is one of the major export destinations and also the home of key competitors and investors. Countries such as South Korea and Taiwan compete directly with Japan in the third markets in exports including consumer electronics and steel. As the yen falls, it puts competitive pressure on their currencies. Recent estimates have shown that South Korean exports decrease by slightly more than 0.6 per cent for every 1 per cent drop in the value of the yen against the dollar. This negative impact on the Asian economies had heightened concerns world-wide. It prompted calls for action to halt the slide that threatened to start another round of economic crisis by triggering competitive devaluations in Asia.

It became increasingly clear that Japan on its own could not do much about the falling yen. The Bank of Japan intervened in the foreign exchange market in April but with negligible impact. In the domestic economy, the government was unwilling to raise interest rates in

order to support the yen as such a policy would foil any chance for quick economic recovery. The only viable option left was a co-ordinated intervention in the foreign exchange market by the G-7 central banks.

The crisis reached a dangerous new phase in late June 1998 when the US Treasury Secretary, Robert Rubin, testifying before a Congressional Committee, suggested that Japan has to fix the yen problem by itself. Fearing that traders would dump massive amounts of yen in the market, the news sent the yen, as well as the other currencies and equity markets in Asia, on a further downward spiral. Japan's neighbours started to prepare for a financial crisis expected to be deeper than before. Very recently this prompted the US treasury to retract from its earlier stated position and join hands with the Japanese central bank in intervening in the foreign exchange market by buying yen and selling dollars. It helped to prop up the value of the yen after the currency fell to an eight-year low of around 146 to the dollar. The intervention—the first joint action on behalf of the yen in more than six years—has also helped the equity markets in the region in recouping some of their recent losses as well as discouraging traders from taking short positions in yen.

The intervention has come as a temporary reprieve. In order to come out from this crisis, there has to be a fundamental shift in Japan's macroeconomic and financial policy. The biggest obstacle to Japan's economic recovery is the mountain of bad loans in the banking system left over from the collapsed bubble economy of the last decade and aggravated by slow growth and falling asset prices in recent years. Restructuring and reforming the banking system is a prerequisite of any restoration of confidence in the Japanese economy. At the same time, fiscal policy will have to be expansionary in order to ease the pain of restructuring. The government of Japan has announced a plan for a US$110 billion fiscal package including tax breaks and increased spending.

The fall in the value of the yen has raised the spectre of a devaluation of the renminbi by China as exports and its ability to attract foreign capital are greatly hampered. Despite recent assertions by high-level Chinese officials—including the Premier, Zhu Rongji—that the renminbi will not be devalued, the continued decline in value of the yen has prompted the Chinese officials to warn that the crisis in Japan could destabilize the renminbi. Such talk has raised fears that China is laying the groundwork for a devaluation of its own. This is also one of the reasons that forced Washington to finally soften its stance on joint intervention with the Bank of Japan. A devaluation of renminbi (which is not fully convertible) would almost certainly lead to a second wave of competitive devaluations around the region, leaving the Asian currencies destabilized and their economies in an even more precarious state. More importantly, it would make it almost impossible for the Hong Kong monetary authorities to maintain the current peg against the US dollar.

China's economic growth rate has started to slow down; growth in 1998 is projected to be around 6 per cent, about 2 per cent lower than earlier estimates. There are also indications that the country's export growth may slow down. One ominous sign is the marginal increase in new export contracts during the first three months of this year. These domestic conditions are putting pressure on China to devalue its currency.

Now that the yen has been temporarily rescued, the question facing the international financial community is whether China will actually devalue. Judging all possible options

and their consequences, it appears that the Chinese government could gain political mileage by keeping the renminbi stable. China is currently waiting on a decision regarding its membership application to the World Trade Organisation (WTO) as well as its most-favoured nation status in the United States. By keeping its currency stable, China can convince the world that it is a responsible trading nation worthy of speedy WTO admission. China can gain by sticking to the current exchange rate. Whatever pain it is feeling now, the consequences of caving in would be even worse.

## 7.3 Macroeconomic policy debate

In responding to the crisis, the policymakers in the affected countries have to simultaneously stimulate the economy as well as stabilize the exchange rate and price level. During the initial stage following the crisis, both monetary and fiscal policies have been relatively restrictive in part because growth forecasts were too optimistic. Tight monetary policy led to high interest rates thus retarding the recovery process. Tight fiscal policy did not help either.

Policymakers have since realised the adverse effect of the tight policies and eased them considerably. For example, anticipated 1998 fiscal deficits in the IMF programme for Korea has been increased from the early estimates of 1 per cent of GDP to 5 per cent. In Indonesia, an originally anticipated fiscal surplus of 1 per cent of GDP has been revised to a deficit of about 9 per cent. Interest rates—which rose initially in most of the affected countries—have also shown a declining trend. For instance, after reaching a peak of 35 per cent, the interbank rate in Korea had fallen to about 8 per cent, compared to around 14 per cent in mid 1997. Nominal interest rates in Indonesia are, however, still high at close to 60 per cent. To allow for greater monetary stimulus without destabilizing the exchange rate, the imposition of some type of capital control has been called for (Krugman, 1998b; Bhagwati, 1998b). Given the political and economic fragility of the developing countries, it has been argued that it would be premature to allow total freedom to take any amount of capital out of or into these countries.

Since September 1998, Malaysia has adopted several sweeping capital control measures. Under these measures, central bank approval is required to convert Malaysian ringgit into foreign currency, and transactions involving foreign currency or foreign residents are generally restricted. The value of the ringgit has been fixed at 3.80 to the US dollar. However, current account convertibility, free flow of foreign direct investment, and repatriation of interest, profits, dividends and capital, are still allowed. The proponents of this measure point out that by suspending convertibility in the capital account, the value of the domestic currency would be determined for trading transactions at a level that can be sustained given the country's comparative advantage. Under these circumstances the inflow of foreign capital could be controlled, as foreign currency would have to be converted into domestic currency at the determined rate by the central bank. This measure would have some immediate benefits; for instance, it would protect the domestic economy from the pressures of the global financial markets. It would also help to lower interest rates by segmenting the market and at the same time prevent sudden capital outflow even if the domestic interest rates fall below world interest rates. The government would be able to follow more expansionary fiscal policy and introduce reform in a prudent and sequential manner. More importantly, this would give the domestic economy breathing space and

help get it moving again. This policy relies on domestic macroeconomic stimulus, rather than the resumption of private financing, to restore economic activity.

On the other hand, the strategy involves at least three risks. First, the restoration of capital inflows may be crucial in ensuring an early economic recovery in the region. In fact, large scale participation by the foreign investors in the export sector has been credited for the quick recovery of the Mexican economy after the 1994 peso crisis. Because of disruptions in their balance sheets, East Asian producers with viable plants are experiencing great difficulty in securing working capital. Further capital control, by discouraging foreign equity financing that could overcome this problem, would thus delay the recovery process (Moreno, 1998).

Second, by adopting capital controls a country may insulate its economy in such a manner that it will lose the incentive to restructure the economy in order to prevent future crises. The cost of such a (mis)step may turn out to be prohibitively high (Moreno, 1998).

Third, the capital control strategy may not work if it is introduced precipitously as solutions to the crisis. Once a country is already in a crisis leading to a reversal of capital inflows, there can be little gain in clamping down controls as it would make everyone, including local investors more skittish and nervous about the economy's prospects.

Several recent studies have shown that foreign direct investment flows have remained relatively stable even in the presence of rather erratic developments of portfolio flows (Dornbusch, 1998; Radelet and Sachs, 1998a). In this context, Stiglitz (1998), Montes (1998), and Wolf (1998) have advocated measures to discourage short-term, speculative portfolio transactions. The East Asian countries, with already high savings rates, may not benefit from complete capital account liberalization as such liberalization, besides increasing exchange rate volatility from short-term capital flow, would also increase liquidity—a situation hardly desirable in an overheated economy. Both Bhagwati (1998a, 1998b) and Rodrik (1998) have suggested that trade liberalization, rather than capital account liberalization, may be more beneficial for these countries. Even the IMF, well-known for its preference for capital account liberalization, has conceded that there may be some cases of desirable capital controls (Fischer, 1997). Countries with fragile financial systems may find it useful to impose controls on short-term capital inflows or to impose prudential regulation limiting domestic financial intermediaries' foreign denominated liability exposure (Griffith-Jones and Pfaffenzeller, 1998).

Malaysia is turning out to be an interesting test case in this debate. Events in the coming months would help to compare the extent of the recovery of the Malaysian economy in the presence of capital controls with that in its neighbouring countries where similar controls are absent.

## VIII CHRONOLOGY OF MAJOR EVENTS LEADING TO THE CURRENCY CRISIS[2]

### Thailand

1997

| | |
|---|---|
| 5 February: | Somprasong Land is the first Thai company to miss payments on foreign debt. |
| 10 March: | Thai government says it will buy about US$4 billion in bad property debt from financial institutions but reneges on promise. IMF chief proclaims that he sees no reason for this crisis to develop any further. |
| 14-15 May: | Thai baht comes under attack by speculators. Singapore and Thailand jointly intervene to defend the baht. |
| 23 May: | Moves to save Finance One, the country's largest finance company, fail. |
| 18 June: | Finance Minister, Amnuay Viravan, staunchly against devaluing baht, resigns. Prime Minister, Chavalit Yongchaiyudh, declares that 'we will never devalue the baht'. |
| 27 June: | Bank of Thailand suspends operation of sixteen cash-strapped finance companies, including Finance One. These companies are ordered to submit to merger or consolidation plans. |
| 30 June: | Prime Minister assures the nation in a televised speech that the baht will not be devaluated. |
| 2 July: | Baht floated; this devalues the currency more than 10 per cent and triggers the financial crisis. |
| 22 July: | An IMF official warns Thailand to bolster its troubled economy by cutting government spending and suggests the country should consider an IMF loan. |
| 28 July: | Thailand calls in the IMF. |
| 5 August: | Thailand unveils austerity plan as part of IMF suggested policies for a rescue package. Bank of Thailand suspends 48 finance firms. |
| 11 August: | Thailand is pledged US$16 billion in loans in a rescue package led by the IMF and Japan. |
| 20 August: | IMF rescue plan agreed. The bailout package is raised to US$17.2 billion. The plan assumes a positive GDP growth of 2.5 per cent in 1997 and 3.5 per cent in 1998. |
| 20 October: | Finance Minister Thanong Bidaya resigns. |
| 4 November: | Chavalit resigns as Prime Minister. |
| 10 November: | Chuan Leekpai is named new Prime Minister. |

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[2] Sourced from *The Financial Times, The Asian Wall Street Journal, The Washington Post,* and *Roubini's Internet Page.*

25 November: Due to a larger than expected decline in value of the baht, a second IMF package is approved.

3 December: South Korea's economic plight sends all currencies in the region, including the baht, to all-time lows against the dollar.

8 December: Fifty-six of the 58 finance companies permanently shut. IMF disburses US$810 million loan.

1998

4 March: The IMF approves a release of the third tranche of the support package worth US$270 million and commends the Thai authorities for resolutely implementing the economic programme. The baht and equity prices continue to gain during the remainder of the month on improved market sentiments.

26 May: Fourth IMF programme agreed to by Thailand.

10 June: Disbursement of US$135 million.

25 August: The IMF package is modified to include a more comprehensive approach to bank and corporate restructuring.

**Indonesia**

1997

11 July: The Indonesian rupiah starts to be affected by the floating of Thai baht. Bank of Indonesia widens the trading band of rupiah from 8 to 12 per cent.

13 August: The rupiah begins to come under severe pressure and hits a historic low of 2,682 against the dollar before ending at 2,655. Bank Indonesia actively intervenes in its defence.

14 August: The system to manage the exchange rate through the use of a band is abolished and the rupiah is allowed to float. The Bank of Indonesia attempts to mop up liquidity by raising interest rates.

3 September: The rupiah comes under pressure and stock exchange starts to slide. Government freezes infrastructure projects and unveils banking reform.

16 September: In an attempt to cut budget deficits, the government postpones projects worth 39 trillion rupiah.

6 October: The rupiah hits a low of 3,845.

8 October: Government asks IMF, World Bank and ADB for advice.

31 October: International donors offer US$37 billion package to help Indonesia stabilize its financial system.

1 November: Closure of 16 troubled banks. One of these banks, owned by Suharto's son, is later allowed to reopen under a new license.

3 December: South Korea's economic plight sends all currencies in the region, including the rupiah, to all-time lows against the dollar.

9 December: Reports that President Suharto is gravely ill sends the rupiah into a tail spin in the foreign exchange market.

12 December: Indonesian stocks plunge another 8 per cent as concerns about Suharto's health continues.

22 December: Moody's, the US credit rating agency, downgrades Indonesia's credit rating to junk bond status.

1998

6 January: The rupiah collapses to 10,000 from 2,400 in August after 1998/99 budget breaches IMF terms.

8 January: IMF announces renegotiation of loan terms.

23 January: The government presents a revised budget closely tracking recommendations by the IMF. The budget expects zero growth in fiscal year 1998, an inflation rate of 20 per cent, and an average rupiah rate of 5,000 to the dollar. The rupiah ends the day at 12,000 to the dollar.

27 January: The government announces a temporary freeze in servicing of corporate debt.

13 February: Suharto blames IMF for failing to stop his country's financial crisis. IMF and major OECD countries warn Indonesia not to adopt a currency board system to fix the value of the rupiah, saying it would shake confidence in the economy.

17 February: Central bank governor replaced.

23 March: Interest rates are sharply raised to control rising inflation and boost the rupiah. The government also drops a plan to levy 5 per cent tax on foreign exchange purchase. The rupiah gains.

May: Subsidies on several essential consumer items are lifted leading to immediate protest across the country.

13-15 May: Student violence erupts in campuses and spreads throughout the country. Calls for Suharto to resign.

21 May: Suharto resigns as President. B.J. Habibie sworn in as new President.

24 June: Additional IMF reforms agreed to by Indonesia in light of changing political climate and worsening economic situation.

15 July: IMF disburses US$1 billion. It also increases financing by US$1.4 billion.

29 July: The government requests the replacement of the existing arrangement with the IMF with a new extended arrangement.

25 August: The IMF approves an extended facility with a longer repayment period. It also disburses US$1 billion.

**Malaysia**

1997

28 March: Bank Negara, Malaysia's central bank, restricts loans to property and stocks to head off a crisis.

8 July: Bank Negara intervenes aggressively to defend the ringgit. The intervention works temporarily.

14 July: Central Bank abandons defence of the ringgit.

24 July: The ringgit hits a three-year low of 2.653 to the dollar. Malaysian Prime Minister, Mahathir Mohammed, launches a bitter attack against speculators.

23 August: Prime Minister blames US financier George Soros for leading the attack on East Asian currencies.

27 August: The government restricts trading in the stock market.

4 September: The ringgit breaks through 3.00 to the dollar barrier. Government announces delay of several infrastructure projects, including Bakum Dam.

5 September: Government reverses most restriction on stock market trading and announces a M$60 billion public fund to prop up the sagging stock market.

1 October: Mahathir Mohammed repeats his call for a tighter regulation on foreign exchange trading. The ringgit immediately falls 4 per cent to a low of 3.408 to the dollar.

17 October: The government presents a belt-tightening budget to try to stop the economy from sliding into recession.

26 November: Anwar Ibrahim, the Deputy Prime Minister, unveils M$500 million fund to assist troubled brokerage houses. Ringgit falls through 3.50 to the dollar.

3 December: South Korea's economic plight sends most of the region's currencies, including ringgit, to all-time lows against the dollar.

5 December: Government vows to cut state spending by 18 per cent in order to reduce its balance of payments deficit. It also promises no corporate bailouts by authorities.

**Hong Kong**

1997

15 August: Speculators attack Hong Kong dollar, overnight interest rates up 150 basis points from previous day. Markets sharply lower.

19 August: Stock market falls almost 4 per cent.

22 August: Stock market falls 6 per cent on currency fears. Overnight interest rates rise from 7 per cent to nearly 300 per cent.

23 October: Stock market falls more than 10 per cent. This is the biggest percentage fall in more than 5 years. The crash hits markets in Europe and the United States. Lending rates rise 75 basis points to 9.5 per cent. During the week of October 23-28, the stock market lost nearly one-quarter of its value on fears over interest rate and pressures on the Hong Kong dollar. Other Asian markets also plunge.

30 October: Moody's, the US credit rating agency, downgrades outlook for Hong Kong's banking sector. Shares fall almost 4 per cent.

3 November: The stock market rallies as the financial aid package for Indonesia helps restore calm to the region.

7 November: High interest rates and falling property prices again lower the Hang Seng stock index.

11 December: Hong Kong's dollar under pressure. Shares fall more than 5 per cent.

1998

9 January: Interest rates raised after week of intense pressure on currency. Stock market falls 14 per cent in a week.

14 January: Hong Kong-based investment bank Peregrine Investments Ltd. files for liquidation prompting a new plunge by Hong Kong's stock market.

**Philippines**

1997

14-15 May: Following a speculative attack on the Thai baht, the Philippine central bank raises the overnight rate 1 3/4 percentage points to 13 per cent.

19 June: The resignation of Thailand's the finance minister has immediate financial impact in the Philippines, where the overnight rate rises to 15 per cent.

2 July: In order to defend the value of peso, the central bank of the Philippines is forced to intervene heavily.

3 July: The central bank raises the overnight lending rate from 15 per cent to 24 per cent.

11 July: The central bank decides to allow the peso to move in a wider range against the dollar. The IMF backs the move and initiates the process to approve the Philippines request for an extension of its Extended Fund Facility (EFF).

14 July: The IMF offers the Philippines almost US$1.1 billion in financial support under a fast track regulation.

4 September: The peso falls to a record low of 32.43 to the dollar before the central bank intervenes.

18 November: The uncertainty surrounding the Korean economy pushes the currencies in the region, including the peso, downward.

**South Korea**

1997

23 January: Hanbo Steel collapses under US$6 billion in debts. This is the first bankruptcy of a leading conglomerate in a decade.

March: Sammi Steel fails, provoking fears of a looming corporate debt crisis.

July: Kia, Korea's third largest car maker, suffers credit crunch and asks for emergency loans.

August: International credit ratings downgraded for banks with heavy exposure to troubled conglomerates.

October: Korea nationalizes Kia after banks refuse to provide additional loans. Standard and Poor's rating agency immediately downgrades Korea's sovereign rating.

6 November: The Bank of Korea intervenes in an attempt to halt the local currency's slide versus dollar.

8 November: South Korea's stock market falls 7 per cent, the biggest one-day drop in the stock market's history. International investors are dismissing claims that South Korea's financial system is sound.

11 November: The Ministry of Finance and Economy announces its intention to stabilize the won against the dollar by resolving concerns about the financial market turmoil.

13 November: Government denies need for IMF bailout.

14 November: Faced with a potential financial crisis, South Korea's majority party vows to pass a financial reform package in order to clean up the debt-ridden banks.

17 November: South Korea abandons its defence of the battered won. The currency drops below 1,000 to the dollar.

18 November: The National Assembly fails to pass the financial reform package. It indicates that the IMF may be required to bail out Korea. The uncertainty surrounding Korea pressures all regional currencies.

19 November: Korea proposes a financial stabilization package to restore overseas confidence. Korea's currency turmoil starts affecting other countries.

20 November: The won falls 10 per cent in value, a day after the country unveiled an emergency bailout. Most regional currencies fall sharply following the decline in the value of the won.

21 November: Buckling under the pressure of a slumping currency and crumbling investor confidence, South Korea asks the IMF for standby loans of US$20 billion to ease its debt crisis.

24 November: Stocks fall more than 7 per cent on fears that the IMF may demand tough reforms.

25 November: Standard and Poor's rating agency lowers South Korea's long-term credit rating from an AA+ to an A-. The agency also issues a 'credit watch negative' designation for Korea, meaning current events could have a negative fiscal effect and result in another downgrade. The agency also lowered the country's short-term foreign currency rating from A2 to A1, and the local currency rating from A1+ to A1.

1 December: Seoul's composite stock price index continues to lose value as investors are worried about any IMF rescue package.

3 December: Korea signs agreement with IMF for a US$57 billion bailout that includes tough conditions on economic reforms.

5 December: Under the terms of the IMF agreement, South Korea lowers the economic growth projection and raises the inflation projection for the economy.

8 December: Korea's short-term foreign debt at US$100 billion is nearly twice as big as previously thought. Korean stocks fall about five per cent amid heavy selling by cash-short institutions and other corporate investors having trouble raising funds in the money market.

9 December: The won plunges to 1,465 against the dollar, a record low. Continued tight conditions in the money market lead stocks downward.

10 December: The government unveils a package of steps to stabilize its faltering financial system. The market's response is lukewarm. An IMF report reveals the central bank's foreign exchange reserve to be very low.

11 December: The value of the won continues to plunge. The stock market slumps another six per cent. Ripples from South Korea's economic crisis spread throughout the region as Asian stock markets fall from the contagion effect.

18 December: Kim Dae-Jung, a critic of the IMF programme, is elected as Korea's President, replacing Kim Young-Sam.

22 December: The currency plunges and Korea's state and corporate bonds reduced to junk-bond status.

23 December: The won falls near 2,000 to the dollar.

24 December: The IMF and donor nations agree to advance US$10 billion to Korea.

26 December: The won rises by nearly 23 per cent against the dollar.

30 December: Foreign banks agree to roll over short-term loans due on December 31st.

1998

8 January: Further loan extension agreed.

28 January: International creditor banks and the Korean government agrees on a plan to exchange US$22 billion of short-term debt for government-guaranteed loans. By mid February, Korea's sovereign risk rating is upgraded by the major rating agencies and the won recovers substantially through mid March.

7 February: Korea agrees to third IMF programme. GDP growth projections are lowered to 1 per cent. IMF disburses US$2 billion.

2 May: Korean authorities update the programme of economic reforms. Growth forecasts for 1998 are further revised downward to -2 per cent.

29 May: The IMF disburses US$2 billion.

25 August: The IMF disburses another US$1 billion.

**Japan**

1997

Early May: Japanese officials, concerned about the decline of the yen, hint that they might raise interest rates. Although rates did not change, it provides the initial signs of the Asian crisis. The Japanese threat shifts the decisions of global investors, who immediately begin to sell Southeast Asian currencies, setting off a downward trend in both the foreign exchange and the stock markets.

3 November: Sanyo Securities, seventh largest broker, files for bankruptcy. This is the first brokerage to fail since the Second World War.

10 November: Shares in Yamaichi, Japan's fourth biggest broker, falls sharply.

12 November: In Tokyo, the benchmark Nikkei 225 share index falls to its lowest level in more than two years as the yen drops against the US dollar.

14 November: The Nikkei index continues to fall amid rising concerns about Japan's financial health.

17 November: Hokkaido Takushoku, the 10th largest bank, collapses due to bad loans. This is the first bank closure since 1945.

19 November: The stock index falls by 5.3 per cent, the biggest point drop in 1997. Investors blame weak bank shares for the drop in stock price.

20 November: Stock prices rebound amid rumours that the government will use public money to aid banks burdened with bad loans.

21 November: Moody's downgrades Yamaichi to junk bond status.

22 November: Yamaichi closes.

25 November: Nikkei stock index falls more than 5 per cent. The yen tumbles to its lowest level against the dollar in more than five years.

26 November: Tokuyo City Bank, a small regional bank, collapses. Rumours of dubious deals and more bank and brokerage firm failures spark heavy selling of shares in the banking sector. High level Japanese government officials appeal for calm among the public and financial markets over the country's economic crisis.

1 December: The government assurances encourage Japanese investors and lift the stock market index.

3 December: Government statistics show that the economy is in a recession.

4 December: IMF's bailout package for South Korea rallies most Asian stock markets; but the Japanese market falls on concerns over its own fragile financial system.

8 December: Overall concern about domestic growth continues to pressure the stock market despite words of an imminent stabilisation proposal from the ruling party later in the week.

16 December: Proposals for about US$80 billion bond package approved. But fails to impress the financial market.

17 December: Prime Minister Hashimoto surprises the market with significant cuts in income and other taxes. Markets rally and then weaken. The Bank of Japan intervenes after the yen falls to 130 against the dollar.

22 December: Nikkei tumbles below 15000, a two-year low. The Bank of Japan offers bridging loans to Korea, amid fears Korean defaults would hit Japan.

24 December: The outlook for Japan's financial sector worsens as Standard and Poor's cut its ratings on two major banks. Four other banks have their credit ratings placed on credit watch with negative implications.

1998

16 February: Japan's Parliament approves a US$228 billion financial stabilization package in order to restructure the troubled banking sector. The scheme is scheduled to start on May 15th.

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